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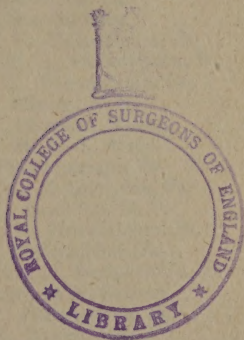
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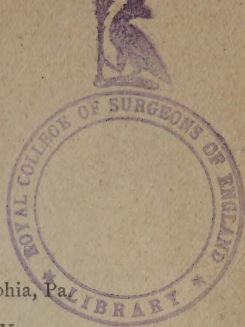
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OCTOBER 1, 1887.

VOL. XVIII.

CLINICAL LECTURE.

BY JOHN H. PACKARD, M. D.,

Surgeon to the Pennsylvania Hospital and to St.
Joseph's Hospital, Philadelphia, etc.

Delivered at the Pennsylvania Hospital, April 23, 1887.
[Reported for the PHILADELPHIA MEDICAL TIMES.]

Case 1.—Caries of the Astragalus; Excision.

I shall exhibit to you this morning two cases of caries of the astragalus, upon one of which I shall operate, leaving the other to be dealt with next week. The latter I now show you. The patient is a boy of 16 years, slender and delicate looking, but without other local disease than that of the right ankle. According to his account, this was caused by a sprain something over a year ago.

The outer side of the joint is, as you see, somewhat tensely swollen, discolored and œdematous. Note that this is not the ruddy tumefaction of acute inflammation; the tissues are infiltrated with the products of a slow inflammatory process in the bones and fibrous structures. Upon comparison with the unimpaired left ankle, you perceive at once the absence of the well defined prominence of the malleolus, the outline of which is obscured by the filling up of the surrounding soft parts. At the inner side of the diseased joint there is seen the opening of a small sinus from which a thin puriform liquid exudes. There is not very much pain or tenderness in the part, except on compression of the astragalus either from above downwards, as in

bearing his weight on the foot, or from side to side, as when I squeeze it between my thumb and finger. Such compression gives rise to a peculiar and very distressing sickening sensation, like that caused by touching a carious tooth. His sleep is often disturbed by starting and jerking of his leg and foot, irregular muscular movements being excited by the irritation of the diseased bone.

For this state of things, in days not very long gone by, amputation was the only remedy known; but no modern surgeon would think of resorting to such a mutilation without previously attempting to save the foot by the removal of the diseased part, whether the astragalus alone be involved, or along with it portions of the adjoining tarsal bones.

We shall keep this boy at rest, and build up his strength with suitable tonics and nutriment, during the coming week; at my next clinic I shall probably operate upon him.

I now bring before you the other patient, a colored boy 13 years of age, who presents an almost identical condition of his right ankle. Some of you will remember that on March 12th, just six weeks ago, I removed an enormous sequestrum, or mass of dead bone, from the left femur of this same boy. The vast cavity which you then saw is slowly but steadily filling up, and he has no trouble arising from it.

Now this boy has no recollection of having sustained any injury either

of his left thigh or his right foot, but thinks he "took cold." I need scarcely tell you that this popular phrase for a familiar but very little understood pathological process explains nothing. Perhaps it is but a small advance toward an explanation when I say that the condition here presented is a local manifestation of struma, such as we often meet with in the negro race and in those who have any strain of negro blood.

Having decided to remove the carious portion of the tarsus, what is the best way to expose it? As there is already an opening on the inner side of the joint, it might seem as if the enlargement of this, and the laying open of the sinus to which it leads, would be the proper method. But we have here, just behind the malleolus, the posterior tibial artery, veins and nerve, as well as the tendon of the tibialis posticus muscle, and it is desirable to avoid injuring any of these structures. Of course they could be held out of the way with blunt hooks, but the simpler and safer plan is to approach the diseased bone from the outer side. I therefore make an incision from above and behind the outer malleolus, curving down below it, and then extending along the external aspect of the foot. The soft parts are freely divided down to the bone, which I at once perceive to be much softer than normal. With a strong, massive bone-knife, I now cut into the body of the astragalus, which is degenerated, and infiltrated throughout with dirty and ill-smelling pus. With a steel elevator I break up and pry out the bone, guiding the instrument with the forefinger of my left hand. Now and then you perceive portions of incrusting cartilage upon the pieces removed. I work freely, taking away any softened and broken-down bone I encounter, and find that the whole of the astragalus, the posterior portion of the scaphoid, and a small part of the calcaneum, are involved. My finger passes now quite across the space left by the removed bone, and its tip feels the pulsation of the posterior tibial artery, lying undisturbed at the inner side of the ankle. Sweeping it around, it comes in contact only with hard, sound bone.

Note, if you please, that there has been no bleeding of any account, although no Esmarch bandage or other controlling appliance was used. I did not think any such precaution necessary.

It only remains now for us to dress the wound. A small, rubber drainage-tube, freely perforated, is passed through from one side to the other. Powdered iodoform is dusted into the cavity. The wound is now carefully closed, except where the drainage-tube passes out; the protective, iodoform and cotton are applied as you are accustomed to see them, and a gauze-bandage secures the whole.

The leg and foot are steadied by means of an angular splint, and we may now confidently look for a satisfactory result.

Case 2.—Amputation at the Hip-Joint.

This case is one of far greater gravity. It is that of the man, aged 27, from whom in December last my colleague, Dr. Morton, excised the head of the femur for necrosis, the result of injury. Since this operation, a suppurating cavity has existed between the sawn end of the shaft of the femur and the acetabulum, which is itself the seat of disease. Pus flows abundantly from several large sinuses opening on the outer and inner surfaces of the thigh. This discharge is a very serious drain upon his strength. By the free administration of tonics, with as much nutriment as his stomach could bear, we have kept him up and brought him into as good condition as possible; but there is no chance of further improvement while there is such a tax upon his forces, and the local condition is beyond remedy.

We therefore propose to remove the limb, with the diseased portions of the acetabulum, in the hope that the man may be able to recover his general health upon being freed from the burden he now carries.

This procedure will be facilitated by the previous removal of the head of the bone; and the patient's long confinement to his bed has established in him a certain tolerance which will in a measure lessen the risk of shock; yet, as he is well aware, the chances against

his recovery are very great. He will never be in any better condition to undergo the operation, and cannot get well without it.

I am sorry to learn from the residents that this man "takes ether badly." He comes under its influence slowly, with a stage of great excitement, followed by severe depression and occasional cyanosis. Hence it is desirable to keep him in the state of anæsthesia for as brief a period as possible, and to avoid any needless loss of blood.

As a precautionary measure, I have an assistant compress the artery as it passes over the pubic bone; and now I enlarge the sinus at the inner side of the thigh, close to which I feel the artery pulsating. Around this vessel I pass a ligature, using a small, blunt, strongly-curved needle in a holder. Catching the free end of the needle with a pair of forceps, and detaching the holder, I draw the needle through and the ligature is ready to be tied. Next I secure the deep femoral in the same way; and there will now be no bleeding from branches of the external iliac artery.

The next step is to complete the anterior flap; then, passing a large and long knife behind the bone, I cut downwards so as to form the posterior flap. A few vessels, branches of the internal iliac, spring, but are instantly caught and tied.

It only remains to gouge away the diseased portions of the acetabulum and to curette the flabby granulations which have lined the sinuses, and the stump is ready to be closed and dressed.

A large drainage-tube is laid at the bottom of the wound, in the angle between the flaps, which are carefully apposed and sutured. The dextrinated protective is laid along the line of the wound; powdered iodoform is freely applied upon folded gauze, and the whole is covered in with a layer of sublimated cotton, and by a gauze bandage.

During the operation the pulse has several times been flagging and intermittent, and the breathing irregular and interrupted. Hypodermic injections of tincture of digitalis and of whiskey have been effective to some extent in correcting these conditions;

but the patient's state is not encouraging. He will be kept with his head as low as possible, to lessen the danger of syncope and heart-clot; and his removal to his bed must be effected with the utmost possible care.

[The unfortunate man never fully reacted, but died in about four hours, from the shock of the operation, combined, possibly, with the effect of the anæsthesia.]

ORIGINAL COMMUNICATIONS.

AN ADDRESS IN MEDICINE.

BY A. B. ARNOLD, M. D.,
of Baltimore.

[Read before the Section on General Medicine, I. M. C.]

THE occasion, which gives me the privilege of addressing an assemblage of distinguished representatives of our profession, appears to me not inappropriate to cast a retrospective glance at the movements which exert a dominant influence on medical practice of the present day. An inquiry concerning the extent and value of our therapeutical resources under changing circumstances, even if very imperfectly carried out, may not be deemed wholly uninteresting to the reflecting physician. The remarkable acquisitions of comparatively recent date in the different departments of medicine,—but more especially the high degree of precision which medical diagnosis has attained, and the invaluable contributions of pharmacology by which therapeutics has entered the ranks of the exact sciences,—could not fail to tell heavily on many a traditional method of treatment and to weaken confidence in the efficacy of many a reputed remedy. Every cheer from our modern laboratories that hailed some brilliant discovery in the domains of physiology and pathology, helped to unsettle the faith of the practitioner in the current system of therapeutics. It is an historical fact that Morgagni's and Rokitsansky's revelations of the secrets of morbid anatomy caused such a thorough distrust, at least in Germany, of the official university teaching of medical science, that skepticism and nihilism became the fashion among the younger members of the profession. How could

they, it was asked, still continue to direct their drugs to the cure of degenerations and destroying lesions, being without any therapeutical means of controlling or arresting tissue changes? It was, of course, a substantial gain when forward speculations and dogmatism gave way to the true method of scientific investigation. Men of a practical turn of mind were at first little influenced by the new acquisitions which appeared to demand a recast of accepted pathological theories. Others were loath to break with the continuity of medical doctrines on which the routine of practice was founded. But the strength of the influence which advanced views had exerted is best illustrated by the disgrace that befell the most universal and potent remedy, one which had the sanction of centuries of experience. Such was the fate of the lancet. It certainly does not require the demonstrations of pathological anatomy to show that there are incurable diseases; neither is it rational to underrate the value of therapeutical measures in deference to the microscope. The enlightened practitioner knows very well that the tentative and progressive spirit of science must inevitably cause fluctuations in theory and practice; but he is also convinced that medical art is in possession of sound and substantial means which enable him amidst all these changes to meet successfully numerous and dangerous deviations from health. A candid and competent criticism is evidently the only safeguard against the overweening confidence in favorite therapeutical measures, as well as the best corrective of an irrational skepticism. As little as I am prepared to engage in such a task, it is nevertheless clear to my mind that it should embrace the subjects which I propose to touch upon, though at the risk of rehearsing what has been far more ably presented by others.

If there is one class of diseases of a well-defined character in which unanimity of treatment might be fairly expected, one would suppose it to be the large group of acute febrile diseases which are self-limiting, or rather show a tendency towards spontaneous recovery,—*sit venia verbo*. I think I do

not exaggerate when I say that there is an English, a French, a German, an Italian, a Spanish and an American treatment of fevers. Statistical tables showing the rates of recoveries under different modes of treatment would lend themselves to no satisfactory decision; for the variable conditions and circumstances that influence the mildness or gravity of these diseases would obviously vitiate the result of a comparative calculation. It may, however, be safely asserted that the rate of mortality in fevers in general has steadily diminished during the last three or four decades. In order to narrow the compass of the inquiry in regard to the cause or causes to which this improvement is to be attributed, it will be convenient to consider the therapeutics of typhoid fever. Now and then the medical world is tantalized for a short period by the promise of aborting this disease by a special manner of treatment. A far more hopeful event is the unabated effort to discover some remedial agent for subduing the febrile movements. Nearly all the so-called antipyretics, which have lately come into use, unfortunately possess the common property of overwhelming important nerve centres, when administered in adequate and continual doses. The artificial depression of the respiratory, the circulatory and thermic centres, cannot be contemplated with indifference in patients struggling against the onslaughts of the fever poison. With all due deference to the favorable reports in regard to the fever treatment by these remedial agents, stronger proof than we possess is required to establish the reputation of their efficacy. If the elevation of temperature and the acceleration of the pulse constituted the only essential elements of the fevers and not merely their most prominent and constant symptoms, then the employment of antagonistic remedies might be reasonably considered to approach the character of a curative treatment. For the time being it must be admitted that the search for a rational therapeutics in the infectious fevers will be governed by the effort to alight upon some agent or agents that will control the febrile movements. Perhaps our successors will be more fortunate than we in the

endeavor to discover the antidotal treatment of fevers. Hyperpyrexia itself is undoubtedly a source of danger, and deserves for this reason the most unremitting efforts to combat it with safety to the patient. Among all the measures adopted to this end, none seems to answer so well as the judicious abstraction of heat from the surface of the body. The promptness with which the cold water treatment fulfils this important indication is undeniable; and if the harsh method of its employment be avoided, it cannot be said to prove meddlesome, aggressive or *hazardous*. Those who favor a so-called active treatment in acute fevers, should be reminded of the history of the treatment of pneumonia, which reads like a commentary on mischievous officiousness. We moderns are no longer swayed by the fear of momentary disaster to attack a pneumonia with all the therapeutical fierceness at our command. Trousseau candidly confessed that long ago he "was tempted to leave nature to bring to a favorable issue the disease against which we are all disposed to act so vigorously, but that he had not dared yet to act."*

Our exuberant *Materia Medica* is somewhat to blame for the fashion of piling drugs upon drugs, though it might be asked, what are they good for if not prescribed? But inconsiderate medication is principally due to the false conception of what constitutes "expectant treatment." The old physicians are often criticised for their crude theories of disease and their easy faith in accredited remedies. As an offset, however, they taught certain practical maxims which no physician of the present day can afford to neglect. They advised "to watch the complications; to attend to the secretions; to support the patient and to obviate the tendency to death." These excellent precepts contain the very gist of the "expectant treatment." In view of the limits of our therapeutical resources in the acute fevers, such a plan of treatment seems the only rational one, and suffices to satisfy professional conscience. There is one part of it which is absolutely remedial and productive of positive

good. This must be conceded to faithful and skilful nursing, including a well-ordered diet and the strict observance of hygienic rules. The physician who has a profound respect for the recuperative powers of nature under favorable circumstances, will be extremely careful in the use of any coercive measures. There is a conservative Medicine as well as a conservative Surgery.

It is rather late in the day to discuss the supreme importance of hygiene and sanitation; not only as prophylactic measures, but also as invaluable adjuncts of therapeutics. Preventive medicine, which has now been fairly inaugurated, is the great glory of our profession in these days, an event which will be signalized as the dawn of a new epoch in the history of our art. The remarkable improvement which is sometimes witnessed in diseases of a fatal tendency in consequence of a mere change of regimen, diet and general mode of living, is calculated to make a deep impression on the medical observer. Balneology teaches many an instructive lesson of the same import. Vital statistics also tell a plain story. After giving due credit to improved methods of treatment, it must be admitted that a great share in the reduction of the death rate in modern times is attributable to the ameliorated condition of the less favored classes of the population, and the increased attention which legislation devotes to the comforts and health of the laboring masses. This question has lately given rise to an animated discussion outside the medical profession. The decrease in the morbidity of factory hands in the large and numerous establishments of England is, according to the reports of the Registrar General, mainly due to the passing of laws which diminish the hours of labor and prohibit the employment of children at a certain age. No other influence had a more decided effect in bringing about a change in the factory laws of that country than the constant agitation of this subject by the medical press.

The reminder to attend to the *indicatio causæ* comes now with a better grace than formerly, since microscopic

* Clinical Lectures. Introduction.

anatomy and the achievements of physiology enable the clinician to fill up many gaps in the interpretation of symptoms. Text-books have long ago dropped their separate chapters on dropsies, hemorrhages, jaundice, essential paralysis and the like. The work is still going on to change clinical into anatomical diseases. But therapeutics has not kept pace with these conquests. Our power of knowing is vastly in advance of our power of doing. The whole stock of our *Materia Medica*, with very few exceptions, consists of remedies which are avowedly employed either to palliate, to subdue or to evoke a symptom. The physicians of a past period thought they had a class of medicinal substances which influence nutritive changes. They called them alteratives, of which calomel held the first rank. Perhaps we have been too hasty in our disparagement of such a claim. Absolute causal treatment is, at any rate, the prerogative of surgery. Chirurgical art in modern times has wrested many an inch of ground from the domain of medicine. These conquests are limited to those portions of it, which had rightfully belonged to surgery, though surgery hesitated for a long time to take possession of them. Specialism, at least in the departments of ophthalmology, gynecology, and laryngology would have celebrated far fewer triumphs had it not been for the introduction of novel surgical procedures. We can appreciate the satisfaction with which the neurologist now contemplates the use of electricity as an important acquisition to his meagre therapeutical resources. It is significant that the remedial powers of this physical agent are solely due to its action in *loco morbi*. The general practitioner encounters his old foes now under the designations of sclerotic, cirrhotic, and other forms of degeneration, with far less confidence in his ability to cope with them than he formerly had. He cannot stand idly by until some lucky chance or a pharmacological wonder shall supply him with a specific; though he would probably give a whole volume on cellular pathology for a single compeer of quinine. He therefore continues to do precisely what his predecessors did under

similar circumstances. He tries to relieve pain, to remove a dropsy, to check a hemorrhage and to improve a palsied limb, whatever may be the known or unknown cause. It is not only in cases belonging to the category of progressive and fatal diseases that a symptomatic treatment or even a crude empiricism is in its place; but necessities occur which urge the physician to strain the resources of his art for no other consideration than to afford momentary relief of only a single symptom. Traube's language on this subject is to the point. He says: "The endeavor to remove a symptom whose persistence endangers the life of the patient, or threatens to prolong a disease, or increases suffering, is as rational as any other therapeutical intention, provided the purpose can be accomplished." Sometimes a favorable change is produced, or the course of the disease is favorably influenced on successfully contending against a conspicuous symptom. The experience of every physician will coincide with this observation. Perhaps it is by a process, which may be recognized as reflex action, that symptomatic treatment not seldom brings a disease to a favorable issue. It is now generally believed that hydrophobia chiefly owes its therapeutical effects through the reflex action of the vaso-motor nerves. There is an aspect of symptomatic treatment which may be conceived to go beyond its original intention. No valid reason can be advanced against the supposition that structural changes may be modified by remedies which exert a specific influence on the functional activities of organs.

Pathological theories despite their fluctuations will continue to control practice. The currency they gain in the medical world is generally accepted as the warrant of their truth. This will always be so, for theory and science are inseparable. Inexplicable facts do not constitute science. Post-mortem appearances become scientific facts, in so far as they lend themselves to the constructions of theories which profess to explain the seat and nature of the morbid processes that gave rise to them. The knowledge which is thus gained, although it may only be of a

theoretical kind, can be made available for practical use. Strange as it may sound, there is a surfeit of facts in medicine, and a dearth of good working theories. Bacterio-pathology, which is founded on a fair induction, is the most noteworthy theory which the industry and ingenuity of experimentation of modern cultivators of medical science has brought forth; though there are signs ahead that indicate a tendency to give it a too sweeping significance. Theories of disease based on the results of etiological investigations are certainly of pre-eminent value. Beyond question, etiology is the most obscure chapter in the whole of medicine; but its successful study is of incalculable practical importance.

That nature often cures diseases, expresses but an insipid truism. If we only knew how nature does cure! An acquaintance with her methods would offer the chance of supplementing them when they are deficient, or to evoke them into action when they are not forthcoming. Physio-chemical investigations have certainly disclosed many of the secrets of the *vis medicatrix naturæ*; and clinical medicine has always profited by the knowledge which they afforded. Many of the names applied by the old physicians to certain classes of remedies implied their supposed physiological effects. They had their excitants, depressants, eliminants, resolvents, revulsives and roborants. This classification is probably imperfect; but in principle it is sound. Every new insight into the nature of a physiological process brings into nearer view its pathological correlative, and suggests a fitting therapeutics. Thus the artificial preparation of peptonizing ferments and the adoption of an improved dietary, is due to the better understanding of the character and function of the gastro-intestinal secretions. The tendency at the present day towards "physiological medicines" has not escaped the criticism directed against experimentation in place of bedside observation. But the criticism is untenable; for it is not only requisite to know the therapeutical properties of the remedies we constantly employ, but it is also highly desirable to increase our stock of useful medicinal agents,

and this is the best accomplished by experimentation. Moreover, it would conduce greatly to the honor and credit of medical science if the mystery surrounding the action of our specifics and empirical remedies were laid open to us. Were it not that the fallacy of the *post hoc* reasoning must always be taken into consideration, there would be no appeal from the dictum of personal experience in reference to the therapeutical value of any remedy. The extreme difficulty of entirely eliminating this fallacy, practically throws this demurrer out of court. The license which is thus conceded to the assertory judgment of the individual practitioner is one of the weakest points in therapeutical science. Virchow has somewhere remarked that therapeutics continues to be the only department of medical science which is tolerant of rubbish. Things have much improved since these words were written. Systematic writers should now be released from paying their kind regards to the faded reputation of many a drug which enjoyed the suffrage of our predecessors.

At one time it was thought that the numerical method offered the only trustworthy criterion of the comparative value of modes of treatment. Practice might then be reduced to the simple empiricism of selecting that therapy in a certain disease which had been found of greatest benefit in the largest number of cases. Science and art would occupy a very subordinate place in such a scheme of practice. The treatment on the average principle would reverse the rule of treating the patient and not the disease. The numerical method is nevertheless the only way of judging the rate of mortality under different plans of treatment. Apart from the variability of the extrinsic and intrinsic causes that influence the mildness or gravity of diseases, every destructive group of diseases is characterized by a constancy of morbid conditions. This sameness of the pathological factors in all the cases of the group neutralizes in a great measure the sources of error which are inseparable from the numerical method. It is therefore perfectly rational to give due weight to that line of treatment which shows a low death rate. Although medical art disposes now of a great

amount of solid knowledge, yet its practice continues to be guided by a preponderance of empirical rules. Moreover, tact and judgment constitute those personal qualities which, in medical art, as in any other art, are indispensable for the display of skill. It is hardly conceivable that medical science will ever attain that degree of perfection which would render it competent to formulate a system of practice which would leave little to the discretion of the physician. A certain independence of action will always be unconsciously exercised by the possessors of practical talent. Medical art in the hands of its brightest ornaments often assumes a character akin to the inspiration of genius. The display of diagnostic acumen, the mastery of difficulties and perplexities, and the promptness of decision in the presence of urgent realities, constitute accomplishments and performances that rival the proud achievements of co-workers in other departments of our profession. There is no walk in life demanding a greater amount and diversity in knowledge than the practice of medicine. But it is not only this wide range of studies and infinity of technicalities which the physician is called upon to make his own; clinical expertness requires the cultivation and exercise of the highest powers of observation and a deep psychological insight. In the discharge of his professional duties, he has to combine warm sympathies with the sternness of an unyielding authority. He has to remain honest even though a little charlatanism be required to secure the confidence of his patient. He has to exhibit a patience which nothing can exhaust, and has to compete with pretention and imposture. During his whole career usage imposes upon him a profound silence concerning his professional exploits. His heroism in facing the dangers he encounters is valued no higher than his fee. God bless the enlightened, conscientious, noble-hearted physician!

DISTINGUISHED VISITORS.—Prof. David Drummond, M.D., A. R. Simpson, of Edinburgh, and Dr. W. S. Greenfield, of London, addressed the students of Philadelphia, at the Chapel of the University of Pennsylvania, on the 28th and 29th ult., giving them familiar talks on ethical topics.

ON THE ETIOLOGY OF PHTHISIS.

BY R. W. PHILIP, M.D., F.R.C.P.E.
OF EDINBURGH.

[Read before the Section on General Medicine of the Ninth International Medical Congress, by Ralph Stockman, M.D., of Edinburgh.]

IN the short time at my disposal I shall endeavor to give a brief résumé of a somewhat extended investigation with regard to the etiology of phthisis.

First of all, I must premise that the scope of the present paper is hardly indicated with sufficient strictness by the words, *The Etiology of Phthisis*. It is not my intention to discuss the morbid anatomy of the phthysical lesions, nor the dependence of the phthysical process on the presence of the tubercle bacillus, nor the important questions of heredity and of climatic and other influences, which bulk so largely in the etiological chapter.

For the present, I start with an acceptance of the doctrine of the unity of the phthysical process and of the immediate dependence of the process on the presence of the bacillus. The rigidly exact observations and experiments of Koch and others have, in my judgment, placed this beyond doubt. I prefer at least not to raise the question now. But in spite of the comparative fulness and clearness of our knowledge in these lines, it appears to me that we are far from a rational conception of the actual cause of death in phthisis. It was with the view of further elucidating this higher etiological problem that the present investigation was undertaken.

A glance through the literature of the subject reveals how seldom the attempt has been made to solve the problem, how comparatively seldom, indeed, the question has been raised. Where the matter has been discussed, explanations have been offered, which may be classified roughly under four heads, viz.: (1) progressive asthenia, (2) loss of hæmotosis, (3) the lighting up of fresh inflammatory foci, (4) the absorption of waste products. Now, I have no desire to depreciate the value of these as integral factors in the process. My contention is that, in view of the comparative regularity of the clinical phenomena and in the light of more recent work, they do not afford

sufficient explanation. Each of them was fully discussed prior to the discovery of the tubercle bacillus, and Jaccoud, more especially, has the credit of emphasizing the importance of the fourth, namely, the absorption of waste products. Since the announcement of the tubercle bacillus, comparatively little has been added in this direction, though the features and clinical course of an ordinary case of phthisis and those of experimentally induced tuberculosis are well defined and strikingly similar.

What, then, is the *modus operandi* of the tubercle bacillus in leading towards death?

Its fatal properties cannot, I think, be regarded as merely irritant or privative. In all probability they are attributable to a power possessed by it of elaborating new products, which are afterwards absorbed.

Before explaining on what facts I base that statement, I ought to mention that Dr. Hermann Weber has hinted at the probability of such elaboration and absorption. In the Croonian lectures (1885), Dr. Weber speaks of "the chemical poison which probably is originated by the development of the tubercle bacillus in the tissues in an analogous manner, as, according to the researches of Gaspard, Panum, Billroth, Burdon Sanderson and others, a powerful chemical poison—sepsin—is developed in the process of septicæmia." I am not aware, however, that up to the present any attempt has been made to treat the matter more seriously. Whether the suppositious product or products are secreted by the bacillus or are elaborated from the tissues which it infests, raises another question, which must be discussed later. It is enough, meanwhile, if we recognize the probable dependence of these new products on the presence and action of the bacillus.

Such a process of elaboration or secretion has its analogue in the more evident varieties of fermentation, which have been studied by Pasteur, Schutz-enberger and others; for example, the alcoholic, the lactic acid, the butyric acid and the ammoniacal. More particularly the view appears to me substantiated by the following weighty

evidence. The association of special forms of microzymes with special forms of fermentative action has been conclusively demonstrated by Pasteur and a large school of subsequent observers. A distinct variety of fermentation as certainly follows the admission into a suitable medium of a given microbe, as the exclusion of the same microbe excludes the possibility of its occurrence. Further, the rearing of pure cultivations has shown that different effects are obtained, though some of the observations in this direction are open to question; and certainly marked differences in the rate of growth are observed, according to the constitution of the medium in which the cultivation is attempted, while certain organisms are most exclusive in their selective affinities. Moreover, if the same medium, say Koch's gelatine, be utilized for the cultivation, in different tubes, of different microparasites, the effects produced on the medium are very different in the several instances. Even in the gross, such differences, for example, in the rate and amount of liquefaction in the production of certain gases are marked. And it is in the highest degree probable that careful examination of the medium after cultivation has been carried on for some time would show important alterations in its chemical constitution, as occurs in the better known forms of fermentation. In other words, the living organism has the power of disturbing, or rather, in order to the preservation of its own life, the organism is compelled to disturb, the molecular arrangement of the elements in the medium of cultivation.

These considerations open up a wide and promising field for investigation. This appears to me the aspect of bacteriological observation, which is pregnant with most results. In illustration of this, the work of Panum, Selmi, Gautier, Brieger, Beymann and Schutz-enberger need only be cited.

In practically applying this hypothesis to the problem of phthisis, I directed my attention first of all to the urine. The results obtained, which have been given elsewhere, were not sufficiently definite in character to warrant their citation here. Examinations of por-

tions of the diseased organs or of their glandular appendages was abandoned, as it was found impossible to have these sufficiently fresh to avoid the objections that would inevitably assail successful results so obtained. This led to the adoption of the sputum as the *materies morbi* for investigation, and that, on the following, among other grounds:

(1.) The sputum is the constant accompaniment of the morbid condition, and stands in a peculiar relationship to the diseased organs.

(2.) It is always accessible in large quantity, fresh, and therefore as much as possible free from such contamination as might be supposed to introduce fallacy.

(3.) It has been shown that the maximum amount of the contagious element resides in the sputum.

(4.) Having regard to the conditions of growth of the tubercle bacillus, it seems likely that the muco-purulent secretion is a peculiarly good medium for cultivation.

(5.) It has been proved that tubercular sputum retains its virulence for months.

(6.) The presence of the tubercle bacillus can be comparatively easily determined, while with greater care, its relative abundance in different specimens may be gauged.

(7.) The sputum can readily be subjected artificially to similar conditions outside the body as within the chest.

(8.) Much of the experimental work already carried out with reference to tuberculosis has been done by the subcutaneous and intravenous injection of unaltered phthisical sputum (of the work of Villemin, Chauveau, Biefel, Veza, Semmes, Tappeiner, etc.).

(9.) Collateral evidence from the side of other ptomaine investigations seems to imply that the ready access of oxygen to the center of ptomaine production aids considerably in their rapid and abundant development.

[TO BE CONTINUED.]

TREATMENT OF FRACTURE OF INFERIOR MAXILLARY BONE, BY A NEW APPARATUS.

BY CHAS. W. BROWN, M.D.,
of Elmira, N. Y.

[Read at the meeting of the Third District Branch of the New York State Medical Society.]

Fractures of the body of the jaw-bone are almost always compound, laceration of the mucous membrane and underlying tissues resulting from the fragments of bone being driven through the soft parts; hence there is liable to be suppuration, and the secretions of the mouth become very offensive from resulting decomposition.

When there is double fracture of the body of the jaw, the two lines of separation may be on the same side, or opposite sides of the symphysis. In the former case the intermediate fragment will not be as greatly displaced or as hard to keep in its proper position as in the latter.

And in many cases where the fracture of the jaw is either single or double, on account of muscular action, causing and keeping up displacement, it is found exceedingly difficult to maintain the fragments in apposition for any length of time even after they have been never so carefully adjusted.

A report of the following case will serve to illustrate the apparatus which was successful in securing the fragments in a case where it was not possible to retain the fractured bone in position for any length of time by the usual methods.

G. H., aged nineteen years, on December 29th, 1886, was riding on a dray, assisting to hold a piano that was being moved; the instrument was on its edge, and the driver went near the curb, so the piano tipped and threw the boy off, the instrument falling upon him, the edge of the piano struck the curbstone, which prevented it from falling flat upon the boy, or it would have killed him instantly. He was taken out and to his home, where I saw him a few moments after. On examination found the under jaw fractured diagonally through the body, on both sides of the symphysis, on the left side midway between the symphysis and the angle, the line of fracture extending from below upwards and backwards; the

AT THE PHILADELPHIA COUNTY MEDICAL SOCIETY on the 19th ult., a special meeting was called to hear Dr. F. W. Pavy, F.R.S., Senior Physician to Guy's Hospital, London, speak "On Some Morbid Conditions of the Urine;" Mr. Lennox Browne, F.R.C.S., Senior Surgeon to the Central London Throat and Ear Hospital, also spoke on "An Unrecognized Cause of Some Throat Ailments."

fractured ends protruded through the soft parts and above the molar teeth, two of them on the left, and one on the right, were driven entirely out of their sockets. The right side was fractured a little in front of the left, and not quite as diagonal; the fragments were separated, so I could easily put my finger down between the fractured ends. When he closed his mouth as nearly as he could, the incisor teeth did not come together within more than half an inch. The chin was easily put in place, but the act of swallowing, or any movement of the muscles of the jaw whatever, would move the central fragment to the left half an inch, and the teeth back of their natural position nearly as far.

There was quite copious bleeding into the mouth from the wounds, and considerable shock.

The fractured surfaces were placed in as nearly their natural position as possible, and held there by an assistant, two strips of Mead's plaster were applied around the inferior edge of the jaw, extending around to the angle on either side; then a roller bandage of cotton flannel two inches wide was applied under the chin, and passed around over the head, the fuzzy side out; this was carried around several times so it covered the whole surface of the jaw, from the lip, as far back under the chin as it could, and not interfere with respiration. Dental plaster was mixed to the consistency of thick cream, and a little salt added, then put on smoothly with the hands, over the whole surface of the jaw, extending up on either side above the ears, and then another layer of bandage over this, and plaster put on the same as before, until a thick solid splint was formed. The plaster hardened very soon, and was firm and smooth, but failed to hold the fractured bone together; the act of swallowing, or any movement of the muscles would produce the same displacement as before the plaster was applied, but not quite to the extent which it did when not supported by the splint. The fractured ends of the anterior fragment would rise up above the teeth on the posterior fragments, and the chin would move back of its natural position half an inch, even when the under jaw was

held as firmly fixed to the upper as was possible to hold it. It was thought best to make forward extension, and to accomplish this, a piece of $\frac{1}{2}$ inch $\frac{1}{4}$ round iron 15 inches long, was bent to form a half circle, and holes punched through both ends; a piece of thin flat steel $1\frac{1}{2}$ inches wide and 9 inches long, was bent to the form of the back of the head, and perforated at both ends, then one end riveted to the centre of the other piece; the whole being wound with bandage, and a cotton pad sewed firmly to the upper end of the upright piece, and securely fastened to the bandage passing over the top of the head; then the ends of the circular



piece, sewed to the plaster splint on either side of the jaw; then a roller bandage carried around the forehead and around the back of the upright piece close down to the circular piece, and held down each time by a pin; this carried around five or six times, making the forehead the fixed point, the plaster splint was pushed upwards and forwards, and held the whole under-jaw firmly fixed to the upper, and the plaster being moulded under the jaw held it forwards in spite of the muscular force, which constantly tended to draw it backwards.

A good idea of the apparatus is given by the cut, and shows it as applied to the patient. The splint produced no

particular discomfort, and did not interfere with the most free motion of the head. The mouth was frequently rinsed out with water and listerine, so the wounds in the gums healed without the usual fetid and irritating secretions. The nourishment consisted of fluids entirely, and was taken through the teeth, by the aid of a glass tube, without opening the jaws. The day after the injury, the face was enormously swollen, so both eyes were closed; the swelling gradually grew less, and in ten days had entirely disappeared. The apparatus was kept on as first applied, without any change whatever, for five weeks, when it was removed; the bone was firmly united on both sides, and there was no perceptible deformity. A bandage was put on to hold the jaws closed for a week longer to avoid danger of displacement.

I am not aware that an apparatus like this has ever been used, but believe it will be found a valuable addition to the numerous splints already at hand; and it will be found useful in all refractory cases of fractured jaw bones.

AN UNUSUAL CASE OF URINARY FISTULA.

BY NATHAN JACOBSON, M. D.,
Syracuse, N. Y.

[Read before the Third District Branch of the N. Y. S. M. S.]

A YOUNG man, Orville Barclay, aged 23, unmarried, a railroad employé, came under my care Nov. 22d, 1886. While crossing the New York Central tracks at the Palmyra station, Sept. 18th, 1882, he was struck upon the right nates by a passing engine and hurled thirty or forty feet; he was carried home unconscious and remained so two days. The late Dr. Kingman, and Dr. Ingraham, of Palmyra, attended him.

After urinating a single time, retention occurred; it was with the greatest difficulty he could be catheterized. As the patient recollects there was no urethral hemorrhage, excepting when the catheter was used; pain was most intense. After some weeks he occasionally succeeded in voiding his urine, especially when taking a sitz bath.

There was swelling and tenderness about the hip and groin from the first, but during the following December a

localized painful swelling appeared in the right groin; the retention grew more obstinate. It was soon evident that a deep abscess had formed, which broke into the urethra, discharging a quantity of pus. Then a fragment of bone found its way out at the meatus.

Whenever, after this, retention occurred, the patient would find as he attempted to empty the bladder, that a tumor appeared in the right groin, which would disappear as the urine was discharged. At intervals during the succeeding two years eight or ten pieces of bone found their way out of, or were removed from the urethra by the attending surgeon. In April, 1883, another abscess opened in the groin and discharged a single sequestrum.

The right thigh had been swollen for sometime; in Feb., 1885, however, it had become very much inflamed and abscesses formed in its posterior portion; some of them were opened at different points between the gluteal fold and the knee. Others opened spontaneously. Through each of them, even the one in the popliteal space, pus and urine was discharged. As they would heal over or become occluded the patient would be seized with a chill and high fever. An examination of the thigh would show the formation of another abscess, which in proper time would break and leave temporarily a new urinary outlet.

Dr. E. M. Moore, of Rochester, saw him in consultation with Dr. Ingraham. The latter informs me that the doctor "at once said that there was fracture of the pelvic bone, to the right of the pelvic arch; that the bone was splintered and some of its fragments probably driven into the bladder or its wall, and afterwards sloughed out and were discharged through the urethra."

When seen by me, Nov. 22d, 1886, he was fairly well nourished and able to get about the house with a crutch. There was limited abduction and rotation outwards of the right thigh. He could not bear his weight upon his limb for any length of time. The thigh presented, about three inches below the gluteal fold, a fistulous opening placed in the midst of inflamed, indurated tissues.

The patient urinated every half-hour, and as he performed the act sitting he had not noticed that nearly all of the

urine was discharged through the fistula. As he micturated standing a few drops forced their way out of the penis, while a stream of some size was delivered from the fistula with sufficient force to be sent several feet from the body. Because of its tortuosity it was impossible to carry a probe into the fistula to any great depth.

The circumference of the penis was $3\frac{1}{2}$ inches; the glans presented a slight abnormality. A shallow fossa occupied the usual site of the meatus, the orifice itself being a simple slit that passed upwards from the corona.

The urethral calibre was 34 millimeters. With Otis's urethrometer contractions were discovered at $2\frac{3}{4}$ inches to 28 millimeters, at $1\frac{3}{4}$ to 30 and at 1 inch to 25. The meatus was contracted to 20. The entire urethra was irritable. A gum-elastic bougie of smallest size—the only instrument that I could carry into the bladder—grated against a roughened surface in the membranous urethra.

The urine was cloudy; upon standing it yielded a decided sediment, apparently largely mucus. It was acid, sp. gr. 1026, contained an excess of earthy phosphates; about 10 per cent. albumen indicated by Heller's test. Microscopically, an abundance of mucous globules, occasional uric acid crystals, amorphous phosphates and neutral phosphates of lime were seen.

On Nov. 25th, 1886, under cocaine anæsthesia, I enlarged the meatus with a meatotome, and relieved the strictured bands in the spongy urethra, with Otis' urethrotome. The stricture at $2\frac{3}{4}$ inches proved to be extremely dense. A 34 Fr. bulb could now be passed to the bulbomembranous urethra. The bleeding was slight; ten grains of quinine were administered. That night the patient slept, for the first time since the occurrence of the accident, three hours uninterruptedly.

A straight sound, 34 Fr., was passed daily. For some days there was a steady decrease in the amount of urine discharged through the fistula and the patient was not obliged to urinate oftener than every three or four hours. My notes for Dec. 6th, 1886, read: "For 27 hours has not passed any urine through the fistula." On the 8th, how-

ever, the patient experienced his old febrile disturbance and a new abscess formed in the thigh. He also complained of pain darting through the thigh at the close of urination. The introduction of the sound to the membranous urethra was not only painful, but it was frequently followed by a rise in temperature. After this therefore the sound was only passed beyond the points cut.

The formation of new abscesses and fistulae continued through the month of January and part of February. During this period attempts were made to carry an instrument into the bladder, a thing that had not been possible since the first examination. But it was impossible to traverse the channel with even a filiform bougie; a little more urine seemed to pass through the urethra.

During the latter part of February the thigh was less irritable and the patient was sent to St. Joseph's Hospital, Syracuse. Here, assisted by the other members of the staff and in the presence of the students of the College of Medicine, I performed perineal section, Feb. 28th, 1887. The patient was etherized and placed, as nearly as possible, in the lithotomy position. The parts were shaven. As the thigh could be only partially rotated outwards, the raphe could not be depended upon for a median incision. A steel sound could be carried only to the membranous urethra; here it met an obstruction which was plainly either bone or stone. The lithotomy staff with posterior groove could not be felt distinctly by the finger in the rectum, nor could it be pressed well up against the perineum. It therefore required some care to cut down upon the guide. Venous hemorrhage was quite profuse throughout the operation. But the groove in the staff was finally reached and the opening sufficiently enlarged. Removing the staff I discovered the scale of bone (here presented) lying transversely across the urethra. I had no difficulty in removing it with a bone forceps. It is, as you see, over $\frac{3}{4}$ of an inch long and almost $\frac{3}{4}$ of an inch wide; a second smaller fragment was also removed. Some dense fibrous bands were cut with a blunt bistoury. The canal, which was very rigid, was then

dilated with my index finger until I was able to pass a 34 Fr. sound into the bladder. A Jacques catheter was carried through the perineal wound; through it the bladder was irrigated with a bichloride solution 1 to 2000; one-third of a grain of morphine was given hypodermically, and in the evening 10 grs. of quinine were administered. The reaction was moderate.

As for weeks prior to the operation the quantity of mucus had increased, and the urine had become alkaline, of low spirit grade and rich in the triple phosphates, it was deemed best to retain the catheter in place. Through it the bladder was washed morning and evening with a solution containing three drachms of borax and one of salicylic acid to the quart. The catheter was each time removed and cleansed, so that no incrustation of urinary salts might occur. On March 4th a circumscribed erysipelatous blush appeared upon the thigh; the patient had a chill and some fever. Quinine and tr. ferri chloridi were prescribed; poultices were applied. The diet was restricted to acidulated milk. March 8th the temperature was normal and did not again exhibit any tendency to rise, while the thigh manifested a praiseworthy disposition to part, not only with its erysipelatous, but its other inflammatory features. April 6th the fistula was thoroughly closed.

The steel sound 34 Fr. was passed daily until April 14th, after which date it was passed only every third day. A generous liquid diet was continued. The quantity of mucus grew steadily less, although the urine had not become decidedly acid when the catheter was removed, April 26th, 1887. On the 30th of April the perineal wound was all but closed, the thigh thoroughly cicatrized and the patient well enough to be discharged from the hospital.

May 11th the urine was acid, contained about 5 per cent. of albumen, some triple phosphates, mucus and round bacteria.

The perineal wound, however, was perfectly healed; the patient was able to give up his crutch, although still requiring the support of a cane. With the exception of a slight indisposition, May 27th (which evidently was in no

wise dependent upon his urinary difficulty), he has since had no trouble of any kind and has grown steadily stronger.

The urine shows but a trace of albumen; the thigh is thoroughly cicatrized; it is firmer than its fellow and measures a little more than one inch less in circumference at the seat of cicatrization than the opposite thigh at a corresponding point. The left gluteal fold is $4\frac{1}{4}$ inches long; the right but 3; the sound is still passed twice weekly.

REMARKS.

This case exhibits some unusual features. It is evident that when the patient presented himself to me there existed urinary fistulæ dependent upon an obstructed urethra. As to the exact character of the injury and the pathological conditions that existed for three months after its receipt, there may be some question.

Before discussing this subject permit me to remind you of a few anatomical facts that bear upon this matter. The membranous urethra is separated from the pelvis by not more than 3-5 or 4-5 of an inch. The prostatic and spongy portions are free and movable; the membranous section firmly fixed by the triangular ligament, between the layers of which it is imbedded, cannot therefore accommodate itself to any force applied. Both, then, because of its proximity to the bony structures and its immobility, this part of the urethra and its surrounding tissues are particularly exposed to rupture, not only from direct laceration, but also from the strain to which they are subjected when more remote portions of the pelvis are injured.

When the urethral walls have given way the course taken by the extravasated urine indicates the seat of the lesion. Dr. Gurdon Buck demonstrated the true anatomy of the perineal fascia as long ago as 1846. His paper is quoted *in extenso* in Bumstead & Taylor's work upon Venereal Diseases; and this question, in its clinical bearings, is ably discussed by Robt. F. Weir, in a lecture published in the *Medical Record*, Nov. 15th, 1879. Simon Duplay, in his excellent article in the International Encyclopedia of Surgery asserts that a blow

upon the perineum sufficient to rupture the urethra, produces a laceration anterior to the triangular ligament, usually at the bulb, and that with fracture of the pelvis, we are quite certain to meet a ruptured membranous urethra.

In our case, the early impression of the attending surgeons was, that the pelvis had been comminuted and the fragments of bone were driven into the bladder. As far as I can learn there were no symptoms early or remote, that must have followed extravasation of urine into the peritoneal cavity, through a rent in the bladder. There was no collapse, no intense epigastric pain, no urgent but fruitless efforts to urinate, no absence of urine when the catheter reached the bladder, no peritonitis. There was, on the other hand, retention an indication that the bladder walls were sufficiently intact to hold the accumulating urine. As there was no urinary extravasation into the subcutaneous tissues of the penis, perineum, abdomen or other parts; furthermore as there was no discharge of blood—except that resulting from instrumental manipulation—and finally as the patient voided his urine through the natural channel before retention occurred, it is to my mind quite certain that there did not result immediately a complete laceration of the urethra. It is more than probable however that the peri-urethral structures sustained a severe injury or that there was possibly a partial laceration of the urethra, the mucous membrane remaining intact, and that the resulting hemorrhage created a tumor of sufficient size to occlude the urethra.

There occurred additionally either a comminuted fracture of the pubic ramus or there developed a periostitis or ostitis with the ultimate exfoliation of sequestra.

The formation of an abscess in the peri-urethral structures led to the rupture of the membranous urethra during the following December. The spontaneous evacuation of pus into the urethra rather than through the skin was probably due to the interposition of the dense fascia lata, which gave way only under further inflammatory destruction. The discharge of fragments of bone through the urethra, after the manner

here recorded, is a most unusual occurrence. The small pieces of bone were readily discharged, and probably led to the formation of the strictures in the spongy urethra. But when the large fragment found its way to the canal its size prevented its easy escape and a permanent obstruction resulted. The urine, as it was driven against this dam, found its way through the opening in the urethra into the abscess cavity. The saturation of these parts, with urine, lighted up anew the inflammatory reaction and led to the ulceration of the dense fasciæ of the thigh. The urine, burrowing its way through them and between the muscles, inflamed the structures, created abscesses in the dependent portion of the thigh, and finally produced the urinary fistulæ.

The question might have arisen—are the sinuses dependent upon the presence of necrosed bone, or are they of urinary origin? That urine was regularly discharged through them decided beyond peradventure their communication with the urinary channel; and as the excretion was discharged only with the act of micturition, it could be asserted with equal positiveness that the communication must have been anterior to the neck of the bladder. The fistulæ belonged to the second group in Sir Henry Thompson's classification—the indurated variety. The existence of an exit for the urine at this particular point is rare. In a case reported by Gouley the opening was at the apex of Scarpa's triangle. As there was no infiltration of urine into the perineum, the penis or scrotum, those parts connecting with what Tillaux calls the inferior penile chamber, it is evident that the opening into the urethra was posterior to the bulb. The examination of the urethra verified this conclusion, as it located the most marked obstruction at the membranous portion.

Regarding further the pathology of urethral fistulæ, it seems to me entirely a secondary consideration as to whether the laceration of the urethra occurs immediately after a trauma or subsequent to inflammatory destruction from without, or as the result of ulceration of a single follicle, as Dittel has so ably shown, is its usual source in cases of

stricture. There exists in every case, however produced, as the fixed factor a persistent urethral obstruction which occludes the canal, preventing the free escape of urine, and produces either dilatation of the urethra behind it, and finally rupture, or diverts the urinary current through an existing laceration into the neighboring tissues. The single purpose of our treatment must be, to rid the canal of its every obstruction. This naturally brings us to the question—what constitutes urethral stricture?

I believe with Otis that each male urethra possesses a definite calibre. He has given us an urethrometer with which we can establish the normal size of the spongy urethra and note the slightest variation from this standard. In our patient strictures were located at $2\frac{3}{4}$, $1\frac{3}{4}$ and 1 inch from the meatus. Despite the fact that I recognized the urinary fistulæ as communicating with the membranous urethra, I believed it as necessary to remove the obstructions in the penile as those in the deep urethra.

That slight contractions in the pendent urethra may interfere with the healing of fistulæ connected with the deeper urethra is nicely illustrated in a case reported by Mr. Walter Coulson in the *London Lancet* of August 28th, 1875. Various operative measures failed to heal a perineal fistula which readily closed after a few strictured bands of large calibre in the penile portion had been severed. Mr. Coulson was therefore moved to say: "The result of Dr. Otis's operation certainly proved that slight contractions which are not usually recognized as strictures may offer obstruction to the passage of urine sufficient to prevent a urinary fistula from healing."

The marked reduction in the quantity of urine discharged from the fistula, as well as the lengthened interval between the urinary evacuations, after the internal urethotomy, tell plainly what influence in our case also the anterior strictures exerted. Many fistulæ, no doubt, heal while some strictures of large calibre remain; but as it is possible that omission to relieve the urethra of these contractions may interfere with the success of other operative procedures,

and as we are now able to not only locate, but with mathematical accuracy overcome all such obstacles, it is evident that this step is of paramount importance.

We read in Sir Henry Thompson's illustrious work that despite the daily passage of a No. 12 E. catheter the urinary fistulæ in a given case did not heal, until for many weeks all of the urine collecting in the bladder was evacuated entirely by means of a catheter. A No. 12 E., equivalent to a No. 18 Fr., is altogether too small an instrument to distend to its utmost the smallest urethra of an adult male. Finally, it must be said that the radical cure of urethral fistulæ can only follow the permanent removal of the cause. As to the propriety of perineal section in our case or in any other where there is obstruction in the membranous urethra, there can be no possible question.

We had to deal with a fistula or a number of fistulæ, imbedded in a mass of indurated tissues, very remote from the urethra. The long, tortuous channels traveled through dense muscular structures. For two years the patient discharged nearly all his urine in this way, and the tissues impregnated with it showed all the disastrous results of such impregnation. When large loss of substance exists, some of the many plastic operations described in our surgical works can be performed. But when we treat simple or indurated fistulæ, I feel prepared to assert that with the thorough removal of all obstructions, great and small, other steps are unnecessary.

As to the after treatment, but a few words will suffice. It will be observed that the catheter was retained in the bladder through the perineal orifice for some weeks. I am aware that Dr. Gouley most thoroughly opposes this course and quotes very learned authorities in his excellent work upon urinary diseases to the effect "that the retention of the catheter in the bladder passed either through the whole length of the urethra, or through the perineal wound, does not fulfil the indications for which it is used; that it is as a general rule attended with danger and that its omission is a safe measure."

With a Jacques catheter it is impossible to produce an ulceration of the bladder, so greatly feared. The purpose that I had in view was to secure drainage of the bladder and thus give rest to the inflamed organ.

Last fall, in a case where I operated by median lithotomy and removed a phosphatic stone weighing an ounce and a-half, I did not place a catheter after operation. But I was very glad to do so on the evening of the second day—after the patient had had a severe chill and sharp fever—and then gave vent to a large amount of ammoniacal urine and pus, which had collected in the diseased bladder. With drainage and antiseptic irrigation we passed through the following four weeks without further febrile reaction.

I have not considered it within the province of this paper to refer to the early treatment of similar injuries to the pelvis and urethra.

TRANSLATIONS.

SEMMOLA ON ALBUMINURIA.—Prof. M. Semmola gave an address in the Section on General Medicine, entitled “New Researches, Experimental and Clinical, upon the Pathogenic Conditions of Albuminuria.”

The conclusions reached were as follows:

1. The so-called physiological albuminuria cannot be considered as such, because in the typical normal state, the albuminoid principles are not eliminated by the organism. The question is always, then, of a pathological state, or, if you please, of a condition always abnormal. It may be very slight; it may not prevent one's believing himself to be in good health, but the elimination of albumen by means of the kidney always indicates slight disarrangement of the proper balance between the ingestion and excretion of albuminoids.

2. The facts heretofore established concerning the augmentation of the blood-pressure cannot be considered conclusive; because they are based upon grave disorders of function produced upon other organs than the kidneys.

3. The gravest maladies of the heart, at their non-compensatory stages, while producing renal stases constantly, are

not always accompanied by albuminuria. Should there not be, then, another condition pathogenic of albuminuria?

4. In augmenting the general blood-pressure by transfusion of blood from an animal of the same species, we obtain hæmoglobinuria, and sometimes even a true hæmaturia, but not albuminuria. The augmentation of the blood-pressure, in consequence, is incapable, by itself, of producing albuminuria.

5. The augmentation of the blood-pressure by injection into the jugular vein of a quantity of defibrinated blood, and by the same quantity of blood transfused, produces at the same time, hæmoglobinuria and albuminuria—the last in considerable proportion. It is then evident that the dyscrasic condition of the albuminoids, as the pathogenic condition of albuminuria, is the true cause of the albuminous filtration through the kidneys, which are forced to eliminate from the organism all which is useless and even dangerous to the maintenance of the functions.

THE BODILY TEMPERATURE IN EPILEPTIC SEIZURES.—Bournonville in a recent issue of the *Progrès Médical*, reports a number of observations made upon epileptic patients, which show that a single epileptic attack increases the bodily temperature from a fraction of a degree to a degree and a half; that the serial or repeated attacks show an oscillation within the same limits; when it remains steadily elevated, death may occur with convulsions.

TRANSMISSION OF TYPHOID FEVER BY INFECTION.—M. Fereol at a recent meeting of the Paris Academy, read an interesting report of a local outbreak of typhoid fever at Eaux-Bonnes, communicated by Dr. Devalz of that place. Three children of a landlord suffered with typhoid fever after a traveler had been sick in the hotel with the same disease. No contamination of the water was found, but these children slept in a bed room into which odors from the cess-pool found their way.

DIARRHŒA IN INFANTS.—Lactic acid (two parts) in Syrup (98 parts) is recommended by Hayem and Vigier in the green diarrhœa of infancy. Dose, two or three teaspoonfuls a day. *Bull. de Therapeutique.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, OCT. 1, 1887.

EDITORIAL.

THE BEGINNING OF THE NEW
 VOLUME.

As the beginning of the new volume, in one sense, inaugurates a fresh departure for this journal, a few introductory and explanatory statements seem appropriate and necessary. Eighteen years ago Messrs. J. B. Lippincott & Co., instituted the *Philadelphia Medical Times* at the urgent request of a number of the physicians of this city, who desired a first-class medical journal to properly represent Philadelphia medical thought. These honored men, many of whom have now passed away, contributed not merely of their scientific knowledge and clinical experience to its success, but also of their means in order to establish the new journal. The first impulse came from members of the Philadelphia County Medical Society, and from the Fellows of the College of Physicians of this city, and the proceedings of these societies have always occupied a prominent place in its pages. When first started, Dr. Edward Rhoads, who had just finished his term as resident physician in the Pennsylvania Hospital, was selected as the editor, but owing to ill health and early death, he never actually fulfilled his appointment, and Dr. William Pepper, now Provost of the University of Pennsylvania, and Professor of the Practice of Medicine and of Clinical Medicine in that institution, performed his duties for the editor during his brief illness, and conducted the journal for years afterwards. Dr. Pepper was succeeded as editor by Dr. James H. Hutchinson,

one of the attending physicians to the Pennsylvania Hospital, whose literary taste and scientific acquirements were of great service in continuing the high standard established by the former management. Dr. John H. Packard, now of the surgical staff of the Pennsylvania Hospital, and known to the profession as author, editor, and translator, followed Dr. Hutchinson in the editorial chair, and after one year was succeeded by Dr. Horatio C. Wood, Jr., Professor of Therapeutics and Materia Medica and of Nervous Diseases in the University of Pennsylvania. In 1881 Dr. Frank Woodbury was made assistant editor, and in 1883, on the retiring of Dr. Wood, to become editor-in-chief of another journal, Dr. Woodbury took editorial charge of the *TIMES*. As to the conduct of the *TIMES* during the last four years we shall not speak; we believe, however, that it has lost but few old friends and has made many new ones. The constantly increasing work has required an increase in its editorial staff, and we are happy to announce that Dr. Wm. F. Waugh, Professor of the Practice of Medicine in the Medico-Chirurgical College, will hereafter be united with the previous Editor in both editing and publishing this journal, and Dr. George H. Rohé, Professor of Dermatology and Hygiene, in the College of Physicians and Surgeons of Baltimore, has consented to act as associate editor. This arrangement we are very sure will add greatly to the strength of this journal.

Of the conservative course taken by the *TIMES*, with regard to the ethics of the profession, the support of medical organization, the advancement of medical education, the abuses of specialism and private dispensaries, and recently in advocating the interests of the meeting of the International Medical Congress at Washington, we need

not speak. We wish simply to return thanks to those of our old friends who have given us encouragement, and to our new subscribers for the material evidences of their appreciation of our course. As a result of the favor of the profession, and the increasing prosperity of the *TIMES*, we have taken this opportunity of inaugurating some changes which we hope will be acceptable to our readers. At the request of a number of our subscribers, we have decided to abolish "Inserts," and as soon as present contracts expire, the advertising sheet will cease to invade the parenchyma of this journal. We shall also keep our reading pages inviolate and free from that form of insidious advertising known as reading notices, all of which shall be relegated to the Publisher's Department.

With regard to the general make-up of the *TIMES*, no change is contemplated for the present. Except for a short period, when it was issued weekly, this journal has appeared every two weeks, and it will be continued as a semi-monthly for the present. The Departments will have some new features, one of which, "Letters to the Editor," we hope will prove a place of record for interesting notes of treatment, suggestions, queries, and replies, which would otherwise be lost to the profession. Hereafter, society reports will be abstracted and abridged; we will not devote whole pages to discussions of papers read at the ordinary society meetings, but if anything of import and permanent value is said we shall hasten to note it.

One innovation that we introduce, herewith, is the signed editorial. In doing this we believe we will insure greater accuracy of statement and indirectly increase the value of our editorial work.

The quarterly reports on progress in different departments of medicine will

be no longer published as such, but the evidences of progress of general interest will be promptly chronicled, leaving subjects of interest only to the specialist to the journals devoted to particular branches of medicine. Particular attention will hereafter be given to notes of clinics and representatives of the *TIMES* will attend the various hospitals, where public clinics are held, as well as the various society meetings, in order to collect such clinical notes as will best illustrate methods of practice in this great centre of medical teaching, and disseminate the valuable lessons here taught by the bedside and rostrum.

F. W.

THE RELATIONS OF DERMATOLOGY TO GENERAL MEDICINE.

Thoughtful dermatologists have always regarded their specialty as simply a branch of the general profession of medicine. Skin diseases are not a class of morbid processes with a pathology of their own, but merely variations of pathological processes, whose peculiarities are due to the specialized character of the tissues affected. Dermatology is therefore merely a branch of general pathology, based upon the same principles, and to be studied in its general relations. The "pure specialist," who prides himself upon his ignorance of pulmonary, digestive, nervous or uterine diseases, or of the principles of general medicine, is not likely to represent his specialty in the truly scientific spirit. To the latter class we commend the philosophic address of Dr. Unna, delivered at the International Medical Congress in Washington. Dr. Unna's theme was "Dermatology in its Relations to General Medicine." He pointed out that many of the advances in pathology had

been made in studying diseases of the skin. This he held to be true especially in inflammation, our knowledge of which had been almost altogether obtained by studying this process in the integument. The important department of parasito-pathology also had its beginnings, and has secured its most definite foundations in dermal pathology. These facts indicate in a measure the debt which general medicine owes to dermatology. On the other hand, dermatology is indebted no less to general medicine. Many of the most important discoveries which have redounded to the advantage of dermatology were not made by specialists, but by general practitioners of medicine and surgery. Every general practitioner should be a dermatologist, because a knowledge of skin diseases is indispensable to him if he would be a scientific practitioner. Likewise the dermatologist must be a practical physician in order to appreciate the influences of general pathological conditions upon the skin, or of morbid processes in the latter organ upon the general organism.

A scientific study of dermatology from this point of view will inevitably produce results which will be of great benefit to general medicine. To this country, with its pervading spirit of progress, liberality and originality, Unna looks hopefully for the realization of this advance. Not only are earnest students needed, but the means by which they can work. These must be furnished by government, institutions, or the liberality of private individuals.

Medical colleges have been liberal enough in distributing the title of professor of dermatology; in but few has any provision been made for a proper study and treatment of skin diseases by the erection of special wards or

hospitals. This is a crying need of the day, and should be demanded of every institution where medicine is taught. The ambulatory treatment of skin diseases is of little value as a means of study for the student, who sees the patient on rare occasions, and is not enabled to follow the course of the disease or the effects of treatment. When this reform is accomplished and dermatology is studied from both a scientific and practical standpoint as a part of general medicine, both the specialty and the science of which it is a branch will receive the benefit. G. H. R.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

THE ETIOLOGY OF TYPHOID FEVER; MORRHUOL; THE ACTION OF ANTITHERMIC MEDICINES; HEMORRHAGIC METRITIS; SOME NEW FORMULÆ.

The Etiology of Typhoid Fever. This single disease has a total mortality in France of 80 per 1000. In the army alone, which is composed of the very best physiological element, thirty per cent. of the deaths are from this destructive malady. Direct contagion as a possible cause is no longer denied, but how does it originate? We have already mentioned the recent studies and investigations made by Professor Brouardel, Dr. Chantemesse, and others, during the recent typhoid epidemics in different parts of France. These observers showed that the principal element in the propagation of enteric fever is the ingestion of potable waters contaminated by the presence of the typhoid bacillus. It is also a proved fact that the dejections of typhoid patients in this way distribute the disease as they infect the drinking water. Air also is a vehicle, less active it is true, as it does not carry the morbid elements so far as water does, but its influence has been proved to extend to rooms in the same house, to the next house, and even across the street. Dr.

II. Lecuyer takes up this question lately in quite a practical way, and gives the above facts, while he admits that there are cases which they do not explain. For seventeen years he has seen patients that got typhoid fever always under the same conditions, but in whom it was impossible to assign a cause. These were cases that occurred every year in practice of patients who had either just been getting in a heavy harvest, or had taken part in the annual military reviews, or had just been engaged in the difficult labor of wine or sugar manufacture.

All such cases can be put down to corporal "*surmenage*," but how can the etiology of such typhoids be explained? Pasteur's fermentation theory "*panspermie*," by which all fermentations are due to the action of germs in the air, *can* be used here without facts contradicting us, and Béchamp's "*microzymes*," those little organisms that are always found along the intestinal tract, may play the same role as the microbes found in the air do, both of them developing abnormally under certain influences. Béchamp said, "Diseases are born of ourselves and within us." It is not possible to produce typhoid fever, or small-pox, directly, by taking germs from the air. Professor Gautier has shown that those toxic alkaloids called *ptomaines* are not developed only in putrefying bodies, but that they are seen to form in normal secretions as well (urine, saliva, etc.), and we manufacture these poisons constantly. On the slightest arrest of their incessant elimination by the kidneys, or by the respiration and intestinal secretions, will occur an accumulation of poisons which act on the nervous system, and produce effects that constitute disease. This arrest may be produced by a local cause, by a virus, or even by an impression.

It is to be remarked that all the various theories, "*panspermia*," "*ptomaines*," "*microzymes*," with bacteria and microbes, have not as yet done much for practical therapeutics; but they seem to explain patent facts, and above all they permit us to formulate *hygienic rules to prevent disease*. Dr. Straus even saw that the famous comma-

bacillus was almost always absent in serious cholera cases, and yet was plentiful in others that continued getting better; so that one may almost believe it to be the effect, and not the cause of the disease. Again, in the inhalation rooms at the celebrated Mont Doré mineral water station, where phthisis is so much treated, the air ought to be full of microbes; but it is not. We must admit, then, with Professor Peter, that "we are as yet very ignorant of these matters, and that a physician's work is one of much time and patience, that so far he is rather a spectator than an actor in nature's great drama."

It is possible, however, to mention certain clinical conditions, *which are constantly the same*, and under which typhoid fever appears, and from these facts we can deduct certain prophylactic rules and hygienic precautions: 1st. *Overwork* or *surmenage*, bodily or mental, is certainly one of the causes of typhoid fever; every year shows this in the cases already spoken of occurring after hard labor; the same is true of overworked students, as every practical doctor will admit, and as the recent discussions at the Academy of Medicine showed. 2d. *Organic matters in a state of decomposition*. All putrid and decomposing substances provoke typhoid so that all water closets, dung-heaps, meat and vegetable stores, etc., must be looked to as a cause. 3d. *Potable waters*. This cause has been carefully studied in France lately, and it has been shown that the typhoid germs are propagated by water—sometimes it was a laundry established at the river-side entrance to the town, or again the infiltrations into wells or river, of fecal matters or those coming from a slaughter house. It must be remembered that the pathological expression of the infection will be shown in various ways; sometimes by only a troubled state of the digestive tract and again by the full typhoid fever. The conclusion drawn is that when we have symptoms that lead us to think of typhoid, we should devote ourselves to finding out the cause and suppress it.

An interesting study of *Morrhuel* is made by Dr. T. Chazeaud, in his thesis just presented to the Paris faculty of

medicine. The experiments were made in Professor Germain Sée's service at Hôtel Dieu; and we personally saw a number of the patients taking the drug.

The Morrhuol itself is made by M. Chapoteau, or rather from his method, by M. Vial, a Paris chemist. It is supposed to contain all the active principles of cod liver oil without the fatty matters, and represents twenty-five times its weight of the oil itself. It is given in capsules containing twenty centigrammes, which is equal to five grammes of brown cod liver oil. From three to six capsules are given daily at meals. Of course this is not the first time that modern therapeutists have tried to give cod-liver oil in some way that would be more agreeable to patients. Trousseau, himself invented a "*Beurre Bromo-Iodé*," thus combining a fatty body with bromide and iodides, but with but little success. The morrhuol is obtained by treating the brown oil with alcohol at 90°; it has but little smell; is bitter and crystallizes at the normal temperature. The results of its administration to patients in Dr. Sée's wards were weight and appetite increased, cough diminished, and general health improved. It seemed to provoke at times slight cutaneous eruptions resembling those produced by iodine. It is recommended as a *specific* (?) for tubercular diseases, but the author must allow us to wait before accepting his deductions and until time has proved the results.

The Action of Antithermic Medicines. More than a year ago we gave in your columns an account of salol, which had been discovered by Sahli. Since that time the group of medicines to which it belongs seems to have at last reached a definite period in their use; lately a great deal has been said and written on the sedative action of this new group of drugs upon the nervous system. Those now tested of this group are *Acetanilide*, *Antipyrine* and *Salol*. Of the first M. Dujardin-Beaumetz says it like the other two acts not by diminishing the fever combustion, but by a special and direct action on the thermic centres of the spinal cord. This being so, the idea was quickly given to use these drugs in conditions outside of fever; acid salicylic itself has become

an analgesic and has been employed with success in neuralgias and in tabes dorsalis; but antipyrine has almost completely displaced salicylic acid in acute rheumatism, as it acts as well and has none of the disagreeable effects of salicylic acid. Acetanilide, or antifebrine, was discovered as long ago as 1835 by Gerhardt; it is not soluble in water, but dissolves in alcohol. Just here antipyrine has a great advantage, as it dissolves readily in water. M. Dujardin-Beaumetz uses wines to dissolve, as follows:

R Acetanilide, . . . 5 grammes
Elixir, . . . 170 "

M.—A dessertspoonful of this equals thirty centigrammes of the medicine.

The dose varies from twenty-five centigrammes to three grammes per diem. Not over fifty centigrammes should be given at a time. The full dose will develop cyanosis and even collapse. It is not now thought to be of value as an antithermic medicine, as it rapidly produces cyanosis in typhoid fever patients. It is considered a precious acquisition as a nervine, and curious to say, it does not seem to have any action in doses of two grammes a day given for months in most persons, but there are a few in which it brings on a slight cyanosis. M. Germain Sée considers this dangerous, but M. Dujardin-Beaumetz states that it does no harm; that no patients are in danger from it and as it takes away their sufferings they are satisfied, even if they do get blue. It is particularly in all pains that accompany alterations of the nervous system, compression of spinal nerves, pains from the neuritis of the optic nerves, nervous pain in general and special pains like those of tabes, and finally, in epilepsy, rheumatism and sciatica. Salol is also a good nervine, but it is very insoluble, so that it is used in an emulsion made with tincture of quillaya. Its dose varies from four to eight grammes a day divided in three parts. It may also be given in *cachets*. Hopes are held out that in this group of aromatic drugs at least one will be found which will prove to be superior to the bromides, without their dangers, in nervous complaints. M. Germain Sée has just made another long communication to

the Academy on antipyrine and its action in neuralgia, migraine and headache. According to his view it would seem that the action of antithermic medicine is not what we have thought; at present they are scarcely given in fevers in Paris, if at all; but only their analgesic action is now made use of, thus changing entirely our ideas in regard to them. One practical fact can be retained from the action of antipyrine in diminishing the reflex power of the spinal cord; this is that it may act as an antidote to strychnine.

Hæmorrhagic Metritis.—We gave the method indicated by M. Vuillet, of Geneva, some time ago, in which he dilates the os uteri by means of little tampons of iodoformized gauze until it is slowly and completely opened, when its inner surface can be scraped. Last winter, M. Vuillet came to Paris and gave several demonstrations of the method. M. Terrillon, surgeon to the Hospice de la Salpêtrière, in a late clinic, spoke of the danger that curetting of the uterus presented in incompetent and unskilful hands, and indicated very clearly its indications and contra-indications. He said: "You will often be consulted by women who are weakened by constant metrorrhagia, that are difficult to treat, and still more so to find a cause, for sometimes they follow pregnancy or an abortion, at others they indicate a fibrous tumor, but in many no such etiology can be found." A patient was shown, a young woman of 24, with good constitution, and usually in good health; menses commenced at 13, and continued up to January of this year in the regular way; when, all of a sudden, without any known cause, she had abundant uterine flooding, that came on daily, which very quickly undermined her health. She was treated by her physician with tonics, ergotin, perchloride of iron; and injections of cold water, then of hot water, tannin, perchloride of iron solution, and even the vaginal tampon, without any result. On entering the hospital, a careful examination failed to find any cause for the bleeding. The os was normal, with a small round orifice, but there was slight retro-flexion; still this could not explain the flooding. Slow and progres-

sive dilatation according to M. Vuillet's method was used, and a curette brought away, by slight scraping, a number of soft fungous growths, that showed the disease to be hemorrhagic metritis. Recamier, in 1846, first got the idea of attacking directly the uterine mucous membrane after the failure of caustics and all other methods; and his curette is well known, but at that time the modern antiseptic system was not practiced, so that his success was not so great as it should have been, and it was soon forgotten. It was Simon, of Heidelberg, and afterward Hegar, with Kaltenbach, in 1872, who again took up this method, which is certainly a good one, but can be very dangerous if not properly applied, so that the mode of procedure is important. First, a vigorous antiseptis must be instituted for days before the operation. Corrosive sublimate injections at 1 to 1,000, or 1 to 2,000, or carbolic acid in one per cent. solution are used. A tampon of gauze covered with iodol is constantly kept in the vagina. All instruments are held over an alcohol flame, or else put into boiling water or carbolic acid solution, and at present they are finally put in iodoformized ether. The speculum is then put into place, and the os is hooked by a small pair of forceps, and drawn slightly forwards. When the mucous membrane is thick and soft, Simon's curette is used. It is a steel ring, which cuts on one side, mounted on a handle. It is also possible to use small wooden sticks armed with antiseptic cotton, if the mucous membrane is very soft.

Dr. Doléris, of Paris, has also invented a very good instrument he calls "*écouvillon*." If, however, the membrane is hard, Recamier or Hegar instruments are used. Having carefully cleaned off the membrane, it should be cauterized. For this purpose they use carbolic acid (1 to 30), or tincture of iodine, mostly; taking precautions not to allow it to touch the walls of the vagina, which is then distended slightly with tampons of iodolized gauze. The operation is not very painful, only a slight sensation is felt when the curette detaches some one of the fungous growths. Now, as to contra-indications: this operation is only to be

used when the uterus alone is attacked, and never when the fallopian tubes or ovaries are diseased. Again, it must not be attempted when the uterus is immobilized from any cause, or when there is the slightest peri-uterine inflammation: but in all other cases *curetting* of the uterus can be done with the best results, and a rapid and satisfactory cure usually results.

Here are some new formulæ:—

Terpine Elixir (M. Vigier).

R	Vanilline.....	grms. .002
	Terpine.....	" .50
	Glycerini	} grms. 7
	Alcohol. (at 95°)	
	Mellis q. s. ad. ft.	
	M. Dissolve, melt and filter.	

This represents a tablespoonful, and can be taken in a glass of water.

For Acute or Chronic Coryza (Vigier).

R	Tinct. pulsatillæ radicis.....	grm. 1
	Syrup. aurantii florum.....	" 95
	M.	

M. S.—2 to 4 teaspoonfuls a day. Each teaspoonful contains a gramme of the tincture.

Painless Injections of Antipyrène for Neuralgia (Prof. G. Sée).

R	Antipyrine.....	gr. 0.50
	Aquæ.....	" 1.50

And add to each syringeful of the solution a centigramme of hydrochlorate of cocaine.

S.—Introduce the syringe needle deeply into the tissues, and inject slowly, afterward rubbing the part.

THOMAS LINN, M. D.

September 8th, 1887.

BALTIMORE.

A REPORT ON SEWERAGE.—ECHOES OF THE INTERNATIONAL CONGRESS.—THE COLLEGES.

A SPECIAL report upon sewerage and water supply has recently been issued by the Maryland State Board of Health. The report is written by Dr. C. W. Chancellor, the secretary of the board, and purports to be the result of his recent studies in Europe upon these subjects. A point of some interest in connection with the subject matter of the report is the suddenness with which Dr. Chancellor has "gone back" on his favorite method of treating his sewerage problem by Liernur's system. Only two years ago Dr. Chancellor became involved in what may be termed a violent disagreement with Col. Waring on the merits of this system, and now he has come to the same conclu-

sion that nearly all thinking sanitarians had reached some time ago, namely, that the Liernur system, as well as its successors, the methods of Shone and Berlier are impracticable. He has become convinced "that great disappointment has been experienced both as to the efficacy or power of the pneumatic suction and the commercial value of the *poudrette*." In view of Dr. Chancellor's previous, strongly expressed confidence upon both these promised advantages of the *système Liernur*, his "disappointment" must be exceedingly great.

In his unfavorable review of the irrigation system of sewage disposal, Dr. Chancellor is led into making a statement which either betrays want of knowledge of the subject, or is manifestly unfair. He says: "In the first place, land cannot be obtained of sufficient extent in the neighborhood of towns in which sewage is produced; and this may be safely accepted as the rule when we consider that one acre is required in ordinary irrigation for every thirty or forty individuals of the population." How far this is from the actual condition of things is evident when it is considered that in Dantzic, with a population of over 100,000, the sewage has thus been disposed for fifteen years. One acre is sufficient to dispose of the sewage of 240 persons. In Berlin the estimate is 100 to the acre, and in Breslau about the same. In Birmingham, England, a population of over 600,000, finds 1237 acres "amply sufficient" for the purpose of an irrigation field. Evidently Dr. Chancellor's investigations, while upon his official trip abroad, did not extend to places where the irrigation system is in practical operation.

Another manifestation of Dr. Chancellor's want of knowledge or forgetfulness is the systematic manner in which he ignores the separate system of removal of sewage, known in this country as the Waring system. Certainly the Memphis experiment is of sufficient importance and on a sufficiently large scale to have deserved some notice. From an official of a State Board of Health, citizens of his State and the medical profession may reasonably demand fairness in the discussion of such vital problems.

In this report, Dr. Chancellor publishes the details of "New System of Sewage Disposal" for single buildings and small towns. The apparatus is not very complicated and looks practicable—on paper. Estimates of cost of construction and experience in working are, however, still wanting. In simplicity, ease of management, economy and sanitary efficiency, it seems to me far behind the earth or ash closet. Experience can alone decide whether it is an efficient substitute for other methods.

Nearly all the Baltimoreans who attended the International Congress are outspoken in their opinion that the meeting was a success, both from a scientific and a social standpoint. Even the editor of the *Maryland Medical Journal*, who has been one of the most tenacious adherents of the malcontent party, has become converted after personal attendance at the Congress, and handsomely acknowledges that it was an eminent success. Of course, all admit that it would have been still more successful had certain members of the profession here and elsewhere been able to sink their selfishness in patriotism, as was so well expressed by President Cleveland at the Philadelphia Constitutional Centennial.

The preliminary lectures at the colleges have begun, and active preparations are being made for the regular session, which begins on the third inst.

Baltimore, September 23, 1887.

G. H. R.

REVIEWS AND BOOK NOTICES.

PRACTICAL NOTES ON THE TREATMENT OF SKIN DISEASES. *I. Disorders of the Perspiratory and Sebaceous Glands. II. Eczema. III. Inflammations and Hemorrhages of the Skin.* By GEO. H. ROHE, M. D., Professor of Dermatology and Hygiene in the College of Physicians and Surgeons, of Baltimore. Published by the author.

The general practitioner often meets with great difficulty in the diagnosis and treatment of skin diseases. These little volumes give the salient features of the various diseases considered and render their recognition easy. The directions for treatment are clear, precise and practical.

AUTOBIOGRAPHY OF SAMUEL D. GROSS, M. D., D. C. L. Oxon., LL. D. Cantab., Edin., Jeff. Coll., Univ. Pa., Emeritus Professor of Surgery in the Jefferson Medical College of Philadelphia. With sketches of his contemporaries. Edited by his Sons. In two volumes. Philadelphia. George Barrie, Publisher, 1887.

In the medical history of this country of the nineteenth century, no name stands out more prominently than that of Gross. We see him first as a modest country lad eager in the pursuit of knowledge. The voice of wisdom found him an attentive listener. Willing to serve, he was led to occupy a chief seat among the great and noble of this and other lands. A graduate of Jefferson Medical College in 1827, he served his generation faithfully and well until May 6, 1884, when he passed away.

He was professor in four medical colleges during his career as a public teacher, and probably has more living pupils than any of his contemporaries. There was a spring of sweetness in his disposition which kept him ever cheerful. In his autobiography he affords a glimpse of the source of his cheerfulness in a paragraph which is also a touching tribute to his mother:—

"She was a woman of a noble, tender and loving heart, a most excellent wife and mother. She was a devoted member of the Lutheran Church and spent most of her later years in the perusal of her Bible and other religious works. In truth she was a most pure and exemplary Christian, full of faith in the promises of the Redeemer. To her good training I am indebted under Providence for the moral part of my character. Her early advice and admonition, prompted by a heart that never knew any guile or deceit, served to guide me through the thorny paths of boyhood and youth free from the vices which so easily beset us at those tender periods of our existence. It was she who taught me how to revere religion, to love my neighbor, and respect the laws. No one who has not experienced it can fully appreciate the influence which a mother's precepts and example exert upon the character of a child. It is incomparably greater than that of the father; it has something in it so

pure and holy that it associates her in his mind with all that is good and lovely in our nature. The child looks upon her as a guardian-angel, who watches by day and by night every step that he takes, every word he utters, every action he performs, and who is ever ready to applaud or chide him according to the conduct he exhibits. So true is all this that it may be assumed, as an axiom in morals, that a boy who has had a good and devoted mother can never be a bad man. His conscience would not permit it, despite the worst cerebral and mental organization. It is ever present to recall the image of the fond mother. It constitutes a shield and a buckler, which protects him from bad influences by which he is surrounded, and which are so peculiarly trying to the young and inexperienced."

As a consequence of his careful training he had a great horror of everything vicious or immoral, and in his seventy-first year he looks fondly back upon the scenes of his childhood and thanks God that during his early days he enjoyed "the advantage of a pure country air and a pure country life."

We cannot review in a perfunctory way this last work of the great man, whose life history is outlined in the pages before us. Memoirs by Austin Flint, J. M. Da-Costa, I. Minis Hays and others form the material for an appropriate introductory chapter to the work.

PRELIMINARY REPORT OF THE COMMISSION APPOINTED BY THE UNIVERSITY OF PENNSYLVANIA TO INVESTIGATE MODERN SPIRITUALISM IN ACCORDANCE WITH THE REQUEST OF THE LATE HENRY SEYBERT. Philada., J. B. Lippincott & Co., 1887.

NINETEENTH CENTURY SENSE: THE PARADOX OF SPIRITUALISM, by John Darby. Philada., J. B. Lippincott & Co., 1887.

It is a remarkable coincidence that these books should be prepared and pass side by side through the press, and be issued by the same publishing house at, almost the same hour; it is more than a coincidence that the latter work admirably supplements the former. The distinguished members of the Seybert Commission, after two years' search, find no spiritualistic manifestations that will bear scientific examination, and conclude that materialization and fraud are convertible terms. John Darby,

holding with Aristotle that "Common Sense is little better than no sense at all," detects the fallacies of the scientific method, and, taking refuge in philosophy and paradoxes, finds a satisfactory explanation in the doctrine of sensitives, and a solace for all the ills of life in the apprehension of the spiritual. Those who are spiritualistically inclined will enjoy the study of this book. To those who have the skill to control the stops, "there is much music, excellent voice, in this little organ."

HOSPITAL NOTES.

THE PENNSYLVANIA HOSPITAL.—The managers of this institution extended an invitation to the foreign delegates on their way to the International Medical Congress to visit its several departments on the 1st ult. Prof. Henry H. Smith introduced Dr. Morton of the Medical Staff who delivered the following address:

Gentlemen:—The Board of Managers of this Hospital and my colleagues of the Medical Staff have assigned to me the privilege and pleasant duty of welcoming you as distinguished guests of this venerable institution, now well advanced in its second century of usefulness. For the past one hundred and thirty-six years the sick, the injured and the insane have found a refuge and have been cared for in a broad spirit of Christian philanthropy, without restriction as to color, creed, or nationality.

Let me very briefly, for our time is necessarily short, review the honorable history of this foundation. The year 1750 marks the birth of the Pennsylvania Hospital. Previous to this time, although Philadelphia had signally prospered and her citizens were already distinguished for their public spirit and benevolence, comparatively little attention had been given to securing proper accommodation for the sick and injured among the poor, and especially for those afflicted by the loss of their reason. At this time Dr. Thos. Bond, one of the representative physicians of the city, conceived the idea of establishing a free hospital, in order to provide accommodations for the care of such cases. He early secured the co-operation of that great philosopher and

statesman, Benjamin Franklin, and by their efforts, with the assistance of others whom they succeeded in interesting in the movement, a charter was obtained from the Provincial Assembly of 1751.

Franklin, besides actively interesting himself in the administration of the infant institution, was the first Secretary of the Hospital and the second President; indeed, his interest in it only ceased to be manifested at his death. It seems to us eminently fitting that this great charity, the first in the long list of American hospitals—a fact of which we may be justly proud—should have had its first impulse and inception in the personal efforts of a member of the medical profession. In consequence of the unsullied integrity, active energy and wise conservatism which has always characterized the management, and of the valuable lessons which have been taught within its walls and published to the world, this institution has fairly earned a high position not only in this community, but also wherever medical science is taught or American books are read. It may not be known to you, but this institution was the pioneer in giving systematic medical instruction in this country. In this hospital, in 1776, Dr. Bond delivered the first course of clinical lectures to medical students and practitioners ever given on this side of the Atlantic. These demonstrations have been continued, almost uninterruptedly throughout the greater part of the year, up to the present day. Great men, beloved in the profession and in the community in which they lived, in the years that have gone have walked these halls; many of whom, from their eminent services and acknowledged abilities, occupied high positions as authors, teachers and practitioners. Several have been distinguished in the annals of their country for their labors in behalf of their fellow men in the exigencies of peace as well as in war and pestilence, while the name of one we all honor is appended to that Declaration of July 4, 1776, which formally established the independence of these United States. Let me here declare that the honorable example of unselfish devotion to the in-

terest of this hospital, furnished by the members of its first medical staff, has been loyally followed by their successors. Of these I but mention the well-known names of Bond, Shippen, Rush, Physick, Wistar, Parrish, Barton, Randolph, Wood, Gerhard, Pancoast and Kirkbride, hastily taken from the long line of medical men who have served this hospital, whose original observations, labors, discoveries and skill have greatly advanced medical science and benefited mankind.

Until 1841, this hospital accommodated the sick, injured and the insane within the present enclosure. At that time the insane were removed to buildings especially erected, a short distance away, to the west of the river Schuylkill, which are still occupied by them, and which you are invited to visit at your convenience. This institution, I may be permitted to say, has the honorable distinction of having, at an early age, recognized the rights of the insane to humane treatment, and of always keeping in view the possibility of restoration to reason by kind and well-directed treatment. The teachings of Pinel were anticipated in the charter of this hospital, although the harsher forms of restraint were not abolished entirely until after the beginning of the present century.

For more than forty years that department, with its accommodation for 500 patients, had the able supervision of the late Dr. Thomas S. Kirkbride, under whose hands it attained a position which, when considered either from a material or scientific point of view, is certainly second to none in the land.

This institution, marvellous as has been its growth, has not been without its periods of depression and difficulty, which at times sorely tested its stability. In 1777, an invading army having entered Philadelphia, occupied the hospital for several months, confiscating its supplies, medicines and instruments, and for the time severely crippling its resources, and for this spoliation no restitution was ever made. Indeed, it is a noteworthy fact that this hospital has always been supported by the gifts of the charitable and benevolent. Of the many benefactions which this insti-

tution has received, perhaps no gift was more welcome or more appropriate than the beautifully executed painting which hangs before you. It was presented more than seventy years ago, by the artist, Benjamin West, a citizen of this Commonwealth, but at that time President of the Royal Academy of Arts of London, and residing in that city. It is unusual to have such a work so conspicuously displayed in an amphitheatre where sorrow, suffering and even death engage our attention; but "Christ Healing the Sick" seems especially appropriate in its present position, in view of those who, during many months of each year, occupy these seats, receiving instruction from their medical teachers, where it also may teach lessons of compassion when they shall be called upon to minister to the necessities of the afflicted. It is not unreasonable to suppose that many of these young men will be favorably influenced by this scene and carry with them through life the lesson which the picture presents. This hall is consecrated to a high purpose, and its spirit is in keeping with the noble conception of the artist.

The medical library of this hospital was for a long time unequalled on this continent, and even now is surpassed by few libraries which are exclusively medical. The library and the funds to maintain it came entirely from students' fees, which by right and precedent belonged to the medical officers who gave the instruction, but who generously donated them for this purpose.

The managers have with rare liberality introduced such improvements as have been rendered necessary by the progress of medical science and considered advisable by the medical board. The hospital is supplied with fresh air by forced ventilation—a steam fan, capable of making 96 revolutions a minute, distributes hourly to each patient 4,000 cubic feet of pure air at a regular temperature, by day and night, winter and summer. The nursing, medical as well as surgical, is performed by women, though male assistants are also employed.

Great cleanliness in every department had already given us excellent results, even before the introduction

into our wards of the methods of antiseptics, which is now rigidly and universally enforced, and which has relieved the hospital of pyemia, erysipelas and all forms of so-called "hospitalism." Our ambulance system for the transportation of the sick and wounded has proved itself to be of the greatest service; we ask you not to overlook this part of the hospital equipment in making your tour through the place.

This hospital for the sick and wounded has accommodation for 200 patients, and its quota is nearly always filled. It is, though in the centre of the city, surrounded by several acres of ground, open to the air and sunlight; these grounds are encircled and beautified by noble trees, planted more than a century ago. They are also rendered attractive by shrubbery, plants and flowers, so beneficial in advancing convalescence. Among the trees in this enclosure, I would ask your attention particularly to a stately elm, which was raised from a scion of the original "Treaty Elm," under whose spreading branches, more than 200 years ago, Penn made his famous treaty with the Indians for the ground upon which we now stand.

Until so recent a date as 1850 this was the only general hospital here. Since then, incidental to the wonderful and rapid growth of the city, many new hospitals have been established, both general and special, but the old Pennsylvania is still recognized as the great accident hospital, within whose walls up to this time more than 128,000 sick and injured have been cared for.

I have thus, gentlemen, very hastily brought together a few facts connected with the history of the Pennsylvania Hospital, which you are now invited to inspect. We trust that your stay here may prove interesting, perhaps not uninteresting; and that you may carry away with you at least some pleasurable reminiscences of your visit. With best wishes for your health and happiness while here, and for your safe return to your homes, I again extend to you all, and especially to the delegates to the International Medical Congress of 1887 here assembled, a kindly greeting and a cordial welcome.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

IMPRESSIONS OF THE CONGRESS, 1887.

Editors MEDICAL TIMES:

Sirs:—I have been asked by numerous American physicians my opinion of the Congress, and I have been invited to compare it with previous Congresses. I have replied to the first question by stating that from all points of view the Congress of 1887 must be written, in medical history, an unqualified success.

In reference to a comparison between the London and the Copenhagen Congresses, both of which I attended, I have observed to inquirers that this is not the way to look at it.

Each Congress has an individuality stamped upon it by the nationality organizing the meetings, and each nation must do its work of organization and reception in its own way. It would not exalt the Washington Congress to depreciate the London or the Copenhagen Congress; nor do I think that any American physician would desire to obtain fame for his own country by this method of comparison.

The American Congress must stand on its own merits. It had a strong individuality derived from your own institutions and from your own social customs.

The great gathering at Washington of over 2,700 medical men from every part of your great territories of itself testified to the great numerical success of the Congress. Democratic, you had representatives from each state, and we saw the profession of America; not alone the men whom through real merit, or adventitious circumstance, we knew

in Europe, but the men who are doing the practical work of medicine, the men who are in every country the backbone of the profession, the general surgeons and physicians.

The progress of medicine in a country is not to be measured by a few specialists or eminent leaders, but by the number of educated practitioners it possesses. The general average of medical attainment is the true test. Standing out from the rank and file we had some of the leaders in American medicine; we missed many familiar names, *tant pis* for them.

Had only a few of your States been represented, this Congress would not have been truly representative. As to the quality of your representatives it would be an impertinence for me to say anything.

What was the scientific value of the papers?

At all congresses there is a good deal of chaff mixed with the grain. The London and Copenhagen transactions have only to be consulted to prove this, so that you could not be exempt from this general rule. The general average of the papers read were fixed at as high a standard as is usually found at meetings of this kind; you could not expect more; you could not be content with less.

The social features of these gatherings are not without their value, and must be reckoned with.

The resolution proposed by Dr. Pavy, seconded by Professor Reyfus, and passed at Niagara by the foreign delegates, may be taken as the sincere general expression of your guests, and should content you and silence all criticism.

Personally, I could not say enough of the hospitality of your American *confrères*, and I desire to thank them.

It would have been an international disaster had this Congress been a failure. It might have led to the disintegration of these meetings. The American Congress would have been the last one. This would have been a reflection upon you. The patriotism which animated the profession of America, and which led to the great success of this Congress, will be appreciated over your vast continent and

bear fruit. It will strengthen the American Medical Association. One point I would like to emphasize. You had a large number of English visitors, the majority of whom came from the provinces. I am opposed to the absurd ideas that all the talent is centralized in our metropolis. I preach this gospel that the metropolis alone does not represent English medicine. The accident of where a man lives is too weak a one to base upon it any argument as to medical ability. What a man has done is the only test that I acknowledge in assigning a place in this hierarchy of medicine; whether you live at Bristol, Birmingham, Liverpool, Manchester, Leeds, or some other centre, is an accident, but it does not preclude the possession of surgical or medical skill. My view, I am glad to say, is growing and must grow.

The former view might have held good in the old days of the stage coach, but now that steam engine and electro-motor power have annihilated space, provincialism is dead. In things of science each one of us is a citizen of the world.

Yours truly,

Halifax, Eng. TH. M. DOLAN, M.D.

P. S. The following English practitioners amongst others attended the Congress: Drs. F. W. Pavy, London; Grailly Hewitt, London; Leonard Burnley Forces, London; Freeman, London; Laurence, Bristol; Dobson, Bristol; R. Shingleton Smith, Bristol; Cross, Bristol; Leach, Dorset; Parkinson, Dorset; Taylor, Liverpool; Walker, London; Alfred H. Gubb, London; Tomkyns, Leicester; Sinclair Coghill, Isle of Wight; Ed. Owen, London; Anderson, London; Lloyd, Royal Navy; Surgeon-General Marston, London; Surgeon-Major Langdon, Woolwich; Rouse, Brighton; Ruhanson, Brighton; Logan, Bradford; Greme, Blackburn; Boyd Jole, Liverpool; McLeagh, London; Splin, Nottingham; Wiseman, Ossett; Eddowes, Dolan, Halifax; Gould, Portsmouth; Murrell, Phillips and Neville, London.

[Dr. Dolan is the accomplished and genial Editor of the *Provincial Medical Journal*. We are glad to give our readers the Impressions of the Congress on such a capable and impartial observer. Eds. P. M. T.]

A CASE OF CIRRHOSIS OF THE LIVER.

Editors MEDICAL TIMES:

I first saw Mr. D., April 29th, 1887. He was thirty-seven years of age, six feet two inches in height, deep chest, heavy bone, erect, and when in health weighed from two hundred and seventy to two hundred and ninety pounds. He had drunk to excess for a number of years previous to January 29th, 1886, at which time he was stricken with hemiplegia, from which he gradually recovered in a few weeks, and had drunk no intoxicants since. Seven years ago he had a severe attack of acute rheumatism, but has no knowledge of any heart trouble. To use his own words "his physician has reduced him one hundred and seven pounds since the occurrence of the hemiplegia," and he now weighs one hundred and eighty pounds, but looks thin and emaciated, muscles wasted and flabby, appetite good, bowels inclined to be loose, urine normal in quantity, specific gravity one thousand and twenty-eight, high colored, and contains oxalate of lime in large quantities. Pulse ninety-six, temperature one hundred and one Fahrenheit, tongue red and smooth, but moist. A marked murmur heard with first sound of the heart, tenderness and increased area of dulness over spleen, liver seemed somewhat enlarged; but no history of jaundice, pain, tenderness, sensation of weight or fulness in the right side.

Without going into lengthy details of the symptoms that followed, which were those ordinarily seen in cirrhosis of the liver, I will simply say that I saw him from time to time until his death, which occurred August 4th; and the peculiarities were, a continuous *high temperature*, ranging from one hundred and one degree to one hundred and four degrees, and a ravenous *appetite*, with no symptoms of indigestion. With a temperature of one hundred and three degrees, tongue red and glistening, as though entirely deprived of epithelium, he ate, and seemingly digested, three meals a day that would discount a lumberman up to within twenty-four hours of his death,

The autopsy showed a markedly cirrhotic liver weighing one hundred and nine ounces, spleen enlarged to fifty-five ounces with peritoneal adhesions over almost its entire surface, and on section of the organ numerous collections of yellowish color and almost cheesy consistence were found. There were numerous inflammatory deposits on the mitral valve, and a rupture of one of the chordæ tendineæ.

Lincoln, Neb. H. J. WINNETT.

THE CHAUTAUQUA CIRCLE.

Editors MEDICAL TIMES:

In reply to your favor of 18th inst., inquiring as to a Chautauqua method adapted to the medical profession, I would say that the great success attending the Chautauqua course is largely due to its non-sectarianism and the undeniable high authority of its text books. The required forty minutes a day reading, and the lighting of the path towards further research on subjects discussed, are features that cannot be dispensed with in a similar method.

Any plan suggested would undoubtedly bear modification after adoption, when experience should have pointed to a way in which it could be improved.

I think the point should be made that this is a review. Readers would meet with much that they already knew (members of State Boards of Medical Examiners might say, not *very* much). The idea would be to learn better what they do know, as well as to learn some things for the first time.

Short extracts from the seven fundamental studies should appear in each number.

Example, *Anatomy*. The skin and its appendages in a condensed form. Gray the text book. For supplementary reading, name eminent authorities, and monographs of those who have made the skin a special study. Note by the Editor giving recent discoveries, if any, relating to the skin; methods of studying the anatomy of the skin from life, etc.

Physiology.—Function of the skin condensed, text books, additional supple-

mental reading. Authors named, same as above. The same course pursued in all the studies that follow.

Materia Medica and Therapeutics.—Remedies used in skin diseases and their mode of action, etc.

Practice.—Skin diseases named, etc.

Surgery.—Superficial wounds and their treatment, etc.

Obstetrics.—Treatment of the newly born infant's skin, etc.

Chemistry of the skin, etc.

As often as possible a reported lecture or article from some of our eminent teachers on the current subject.

I would have all authorities quoted American, as far as possible. A question column on the current subjects.

A column for general questions for readers to seek information on cases in hand.

The editorial column would in addition to the above about fill a good-sized journal.

I would have the paper and type of good quality. I would not interleave with advertisements. I would never recommend a proprietary medicine, even if the formula was printed on the label.

This is but a superficial glance at what is to be done as I view it. How to select, how best to condense, so as to be understood, and what to select from the vast field of medical literature for condensation, is not my office. I leave that to those that are competent to perform it. In an enterprise of this kind it would be impossible to suit all, but I am well satisfied that a journal can be conducted on some such plan as the above that will meet the views of a great number.

As an adjunct to the journal a correspondence bureau might be established; those preferring could have their questions answered by mail or could receive a regular course of instruction on some branch or branches, paying for the same.

I would have no diplomas or certificates connected with this; the increase of their knowledge should be the only rewards of merit received by the readers.

St. Paul, Minn. CHAS. H. HOUPt.

[The adaptation of the Chautauqua system to the wants of the medical

profession has long been a subject of interest to us. To most of our readers, nothing of the sort is necessary. But how many young graduates find their knowledge perfect, when they begin active practice? Watching by the death-bed, far from the help of kindly professional friends, the enormous mass of what one does not know, weighs heavily on the illy-equipped physician. True, a post graduate course may remedy many deficiencies, but means are not always accessible for this purpose. If there be any way by which the great benefits of the Chautauqua Circles can be utilized by the medical profession, we will be glad to give our earnest support to the movement.

W. F. W.]

MISCELLANY.

OBITUARY NOTICES.

PROFESSOR ALONZO CLARK, M. D.

At his home, in New York, Alonzo Clark, M. D., for many years Professor of Pathology and of Practical Medicine in the College of Physicians and Surgeons, and President of the Faculty, died September 13th, 1887, in the 80th year of his age. Dr. Clark was graduated from Williams College, in 1828, and from the College of Physicians and Surgeons of New York in 1835. Shortly after his graduation he was appointed to the chair of Pathology and Materia Medica in the Vermont Medical College. Subsequently, on his removal to New York city, he was elected Professor of Physiology and Pathology in the College of Physicians and Surgeons, a chair which he occupied from 1848 to 1855. In 1855 he was made President of the New York State Medical Society. He was a valued contributor of many valuable articles to the medical press.

RICHARD QUAIN, M. D., F. R. C. S.

The eminent author of "Quain's Anatomy" and "Quain's Dictionary," we learn by the daily press, has died at his home in London, at the age of 71 years.

The Official List of Changes of Stations of the Navy and the Marine Hospital Department were received too late for insertion in this issue,

DIRECTORY OF PHILADELPHIA CLINICS.

[The following is an incomplete list of the daily clinical lectures in this city for October.—Eds.]

MONDAY.

- 9.30 A. M., Woman's Hospital, (Medical) Walker.
- 12 M., Med. Chi., (Medical) Waugh.
- 12 M., Orthopedic Hosp., (Medical) Sinkler.
- 12.30 P. M., Woman's Hosp., (Medical.)
- 1 P. M., Med. Chi., (Venereal) McConnell.
- 1 P. M., Jefferson, (Medical.) DaCosta.
- 1 P. M., University, (Ear) Strawbridge.

2 P. M., Wills' Hospital, (Eye) Norris, Harlan, McClure.

2.30 P. M., Phila. Hosp., (Nerve) Mills.

TUESDAY.

- 10 A. M., University, (Children's) Starr.
- 12 M., Med. Chi., (Children's) Atkinson.
- 12 M., (Orthopedic) Goodman.
- 12.30 P. M., Women's Hosp., (Gynecology).
- 1 P. M., Med. Chi., (Gynecology) Stewart.
- 1 P. M., University, (Skin) Stellwagen.
- 1 P. M., Jefferson, (Women and Children's) Parvin.
- 2 P. M., Wills' Hospital, (Eye Diseases) Goodman, Keyser, Strawbridge, Hall.

WEDNESDAY.

- 9 A. M., Philadelphia Hospital, (Women's).
- 10 A. M., Philadelphia Hospital, (Medical).
- 10 A. M., Penna. Hosp., (Medical) Meigs.
- 10 A. M., German Hospital, (Medical) Vogler.
- 11 A. M., German Hospital, (Surgical) Deaver.
- 11 A. M., Phila. Hosp., (Surgical).
- 11 A. M., Penna. Hosp., (Surgical) Morton.
- 12 M., University, (Women's).
- 12 M., Med. Chi., (Surgical) Pancoast and Stubbs.
- 12 M., Orthopedic, (Surgical) Mitchell.
- 12 P. M., University, (Surgical) Agnew.
- 12.30 P. M., Jefferson, (Surgical) S. W. Gross.
- 2 P. M., Wills' Hosp., (Eye) Harlan, Norris, McClure.

THURSDAY.

- 11 A. M., University, (Medical).
- 12 M., Med. Chi., (Genito-Urinary) Sudduth.
- 12.30 P. M., Women's Hosp., (Women's).
- 1 P. M., Med. Chi., (Surgical) Goodman.
- 1 P. M., University, (Eye) Norris, Risley.
- 1 P. M., Jefferson, (Medical) DaCosta.
- 2 P. M., Penna. Hosp., (Eye) Harlan.
- 2 P. M., Wills' Hosp., (Eye) Goodman, Keyser, Strawbridge, Hall.

FRIDAY.

- 11 A. M., Med. Chi., (Skin) Shoemaker.
- 12 M., Med. Chi., (Medical) Woodbury.
- 12 M., University, (Surgical).
- 12.30 P. M., (Women's) Surgical.
- 1 P. M., Jefferson, (Eye) Thompson.
- 1 P. M., Med. Chi., (Eye) Keyser.
- 1 P. M., University, (Nerve).
- 2 P. M., Wills', (Eye) Harlan, Norris, McClure.

SATURDAY.

- 9 A. M., Phila. Hospital, (Women's).
- 10 A. M., Phila. Hospital, (Medical).
- 10 A. M., Penna. Hosp., (Medical) DaCosta.
- 10 A. M., German Hospital, (Medical) Vogler.
- 11 A. M., German Hospital, (Surgical) Ferd. Gross.
- 11 A. M., Phila. Hosp., (Surgical).
- 11 A. M., Penna. Hospital, (Surgical) J. H. Packard.
- 12 M., Med. Chi., (Surgical) Garretson.
- 12 M., (Orthopedic) Hunt.
- 12 M., University, (Medical).
- 12.30 P. M., Jefferson, (Surgical).
- 2 P. M., Penna. Hosp., (Eye) Harlan.
- 2 P. M., Wills' Hosp., (Eye) Goodman, Keyser, Strawbridge and Hall.

PHILADELPHIA MEDICAL TIMES.

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OCTOBER 15, 1887.

VOL. XVIII

INTRODUCTORY ADDRESS.

THE METHODS IN MEDICINE IN THE NEAR PRESENT.

BY J. M. DACOSTA, M. D., LL. D.,

Professor of the Principles and Practice of Medicine, etc.

An Introductory Lecture to the course at the Jefferson Medical College for the Session of 1887.

The custom of opening institutions of learning with some ceremony is an old one. In past centuries the beginning of the academic year was celebrated by a formal procession. In it walked the Rector, preceded by an officer bearing the silver mace or other insignia of his high office, the Governing Board of the University, the Professors, the Masters of the different Faculties in their striking dresses, and a line of young men, often carrying branches of trees and flowers, many of them very happy at having passed the learned entrance ordeal, and wearing for the first time the distinctive garb of students. Amid the ringing of bells and much pomp the assembly came to order, and a Latin address saluted the members of the University, and inaugurated its exercises.

The spirit of the age has greatly changed all this. At most of the famed seats of learning on the Continent each teacher begins his branch on the appointed day, without a previous gathering. In England and in this country,

certainly in the medical faculties, there is very commonly still a preliminary assembly with a general introductory to the course of study. The Dean deputes the office of opening the session to his colleagues in turn; and I appear to-night to salute you,—as I now do warmly,—for our Dean, who with his invisible mace of office I wish had handed over his genial eloquence.

In selecting a subject to lay before you to-night, I thought it might not be without advantage to bring together a few observations, such as any one who watches the times can make and accept, on the methods in medicine likely to be the prevalent and fruitful ones in the near present. We live in a period of alertness and upheaval. Powerful forces are at work clearing new pathways, crushing obstacles, hewing into rock here, building galleries there. Restless activity is undermining much of what is old, and asking if it be not better to sweep it all away, and to construct everything anew on different lines. Amidst all this bustle and din, it is well to stand for a moment aside to examine whither we are tending, and in how far the new results can be shaped into means of permanent use. If, in trying to group together some thoughts on the methods in medicine likely to prevail, I appear too sanguine of immediate effect from present work and thought, I beg you to reflect on

the gigantic strides medicine has made since the beginning of this century, and how fair it is to presume that, with more workers and improving ways, we shall soon get even quicker and more decided results. Medicine, as we now see it, is almost a new science; scientific medicine, indeed, had scarcely an existence a hundred years ago. It was born with Harvey, but it slumbered until it awoke with Morgagni, with Auenbrugger, with Jenner, with Laenec, with Bichat, with Bright, with Charles Bell cradling it and guiding its childhood.

The methods in medicine in the near present are certain to be based on the growth of knowledge in the fundamental branches, in anatomy, in physiology, in chemistry, in hygiene, in general pathology and morbid anatomy, as well as on its self-development by improved means of observation and by experiment.

Let us take anatomy. Is it progressing, and what may scientific medicine further expect from it? The limitation of gross anatomy was with few exceptions reached long ago, and this has been fully recognized by anatomical teachers. Indeed, it was so admitted early in the century. Barclay, a most popular lecturer in Edinburgh, Sir Robert Christison records, used to warn his hearers about rushing into print with supposed anatomical discoveries, as they would be sure to find themselves forestalled. He compared anatomy to a harvest field. First came the reapers, Vesalius, Fallopius, Malpighi, who cut down great store of corn. Then came the gleaners, who gathered up from the bare ridges ears enough to make a few loaves of bread. Such were the anatomists of the last century, Valsalva, Haller, Winslow, the two Monros. Last of all came the geese, who still contrive to pick up a few grains among the stubble, and waddle home cackling with joy because of their success. "Gentlemen," the lecturer concluded, "we are the geese."

Yet, though it be true that gross anatomy is complete, we must ask for further service from the anatomist. We want him to teach with more precision and with a full recognition of its importance, regional medical anatomy,

the anatomy of internal organs in their relation to parts around them likely to become implicated in disease and to the external coverings of the body. We also need accurate information as to nerve terminations and anastomoses, both in viscera and on the skin, and as to the courses of nerve-fibres in parts of brain and of spinal cord. The great attention now given to nervous pathology and to the application of electricity calls for this; and while much of the anatomical work is done, it still requires definiteness and clearness to serve the purposes of the clinician.

The great advance in anatomy in this century has come through Bichat's work in general anatomy, and the study of microscopical anatomy which it ushered in. An insight has thus been gained not only into the character of tissues and their association, but a philosophical anatomy has been created, which, elaborated by great naturalists, by Agassiz, by Owen, by Leidy, has taught us to study the entire animal kingdom as a whole; to appreciate the relations of the same textures in the highest as well as in the lowest forms; and to view with ever increasing wonder the admirable adaptation and design in Nature. It has done more. It invites us to extend our studies into one form, in the certainty that, the fuller we do so, the better we shall understand all. It has done yet more. It has aided us physicians greatly by letting us appreciate the kindred diseases of identical textures, no matter in what part of the body situated; and by explaining to us the similarity with which remedies affect these textures, whether they be in one or another organ. General with minute anatomy is thus acting on medicine by making it broader, more scientific.

How is physiology influencing medicine? It is not for me to review here its general advances. The study of functions is doing something to tell us how secretion, nutrition and growth are brought about. But not enough of this knowledge has been gained to become a basis of scientific therapeutics. It may be ours some day, and with it may dawn an era in which disease will be modified or strangled at its birth. What physiology is now working out

efficiently for us is in the elucidation of the nervous system. The great problem of the functions of special centres in brain and spinal cord is being settled; and with this advance we have gained not only in disease recognition, but in disease cure. It seems marvelous to read in journal after journal of the day of more and more instances in which deft hands, acting in the light of the correct appreciation of symptoms made only possible by the physiological labors of Broca, of Ferrier and their followers, have removed tumors of the brain, successfully, and saved lives. The knowledge which influences these actions will grow, and in the near present lead to the most brilliant results.

Chemistry is doing much for medicine. She is constantly adding valuable compounds, such as the bromides, the ethers, chloral, and nitroglycerine have been found to be. She is extracting from well-tried agents the active principles, such as atropine, hyoscyne, aconitine. She is busying herself, as new plants are proved to possess healing properties, with isolating their valuable and most available parts. She has already taught us so much of the character of the secretions, that we justly condemn one who does not avail himself of his test-tube as criminally ignorant or neglectful. But we still want from her simpler means for the ascertaining of the quantities of the ingredients in the secretions. We want ready methods for the sake of practical utility. And we ask that her work be brought into closer connection with bedside work; that we may understand not only the character of the secretions in a given disease, but the variations in them in the different phases of the same disease,—knowledge which would be very valuable in foretelling issues.

Chemistry has entered upon a most hopeful search in the study of the poisons developed by decomposition. It is not only that these "ptomaines," which have been found in diseased or putrid meat and fish as well as in stale eggs and in cheese, explain the poisonous symptoms which we know these articles to occasion; but the alkaloids of decomposition occur also in the human body, there due to cadaveric change, or

formed prior to death. The system through their presence may poison itself, and it is likely that by their study we shall get a solution more certain than we now have of the features of uræmia, of the brain-disturbances of bad forms of jaundice, of venom-poisoning, of the disorder in low and putrid fevers, and in many a state which we vaguely call blood-poisoning. Who knows, too, but what we shall understand—what now we appreciate, but do not understand—how strong emotions, how love, fright, anger, or how excessive fatigue produce illness; doing so, perhaps, by developing in the altered secretions a poison disturbing the nervous system or corrupting the blood.

The physician in the times near at hand will be a very decided sanitarian. As it is, we are all sensible of the growing importance of hygiene. We know the value of sunshine, of fresh air, of open spaces, of pure water, of wholesome food, of appropriate dress, of cleanliness, of effective drainage, of thorough disinfection. We appreciate the use of innocent recreation. We feel the necessity of saving young lives from premature exhaustion by the drain on their unformed powers from overwork, especially from the senseless cramming into jaded brains of useless knowledge. We take heed of the exercise that soothes and refreshes, that fits mind as well as body for better purpose, and of the excessive devotion to it which injures both.

But we have still the task before us of making people generally understand all this; and at the task we must go with the aggressiveness of decided conviction. No faint words; no half-measures. Ignorance, cupidity, the obstructive, terrible force of inertia, must be made to feel that they have a deadly enemy at work in every member of our profession. Do you think it unnecessary to be so active? Listen to the report of a Committee to the American Public Health Association a few years since.* Of the whole number of deaths in the United States as ascertained by the census of 1880, not less than 200,000, or considerably more

*A. N. Bell. "Public Health Papers and Reports," Vol. X. 1885.

than one-fourth of them, were due to epidemic diseases. Measured by the known results in places exempted, by energetic means for their prevention, from the prevalence of epidemic diseases, if these means had been made general throughout the United States, 100,000 of the sacrificed host would probably have been saved. Listen also to these ghastly statistics taken from the recent writings of an eminent sanitarian.* They are more particularly concerned with childhood. "Children under five years of age," we are told, "are expected to die in what may almost be a definite proportion." Examining different countries, we find that of ten children born in Norway only a little over seven attain their twentieth year; in England and in the United States of America, somewhat less than seven; in France, only five reach it; and in Ireland, less than five. What a record when we take into account that most of the diseases of childhood are preventable diseases, and that with a just hygiene they would be reduced to insignificant proportions.

But we need not despair of effecting much by sanitary means properly used. Let us look at results already accomplished by means as yet far from perfect. I will quote, as concerning us all most closely, some of the results obtained in our own country. In Michigan the saving of life from scarlet fever alone has amounted in the last eleven years to 3718. In Memphis, the drainage of which was some years ago in the worst possible condition, the death rate has been reduced in six years from 35 in a thousand to 23.80 in a thousand; in Chicago, in the last five years, from 25.69 in a thousand to 19.46, a saving of 17214 lives in that city during this period†. If then already something is being done, how much more can be done by persistent and united effort. The medicine in the near present will be as largely a medicine of prevention as a medicine of cure. Let us trust that that it will be

even more so. Let us go on in our noble endeavors to be efficient preventers as well as efficient curers of disease. Let us go on with courage and devotion in the self-imposed task of teaching how to lengthen life and to add blessings to it. Let us go on with increased power presenting the splendid spectacle of a profession, earnestly and in its loftiness, striking at its own existence, and, for the common good, endeavoring with all its might to immolate itself.

Much of the advance in medicine of late years has been brought about by the study of General Pathology and Pathological Anatomy. Neither receives in this country the attention it deserves. Yet it is the pathologist who develops into the best clinician. Morbid Anatomy is certainly the very foundation of the recognition of disease; it is to the physician what Anatomy is to the surgeon. But it is invaluable, too, to the surgeon. A great teacher recently gone from us, one whose sagacious words were so often almost reverently listened to in this very hall, the late Professor Gross, records, in his autobiography, the immense benefit Morbid Anatomy was to him as teacher, writer, practitioner, and bewails as one of the crying sins of the day its being taught in so few of our schools. But pathological science is cultivated with assiduity by some here and by many in Europe; in the medicine of the near present its full appreciation is certain, and its methods will be the approved methods of great progress.

In General Pathology there is just now the greatest activity, due to the discovery of minute, living organisms in the body; many, indeed, are the speculations as to what these germs, these infinitely small bodies discernible only with the microscope, have to do with the production of disease. The speculations are not new; and standing in this place it is a pleasure to point to it, that one of my predecessors in the chair of medicine, Professor John K. Mitchell, with rare sagacity and keen analysis, was among the very first to lead the way on this fruitful path of research. In relapsing fever, in tuberculosis, the influence of bacteria has been established; in many other,

*B. W. Richardson. The Commonhealth, 1887. "Essay on the Seed-time of Health."

†Rohé. Address in State Medicine before the American Medical Association, Chicago, 1887.

especially infectious maladies, we may fairly infer microbes to be the cause, or to play at least an important part. The whole medical world, dissatisfied with its knowledge of the causes of diseases, particularly of communicable diseases, is restlessly seeking out these little bodies of specific power. It feels that if it can be made a demonstrated truth that they are causative agents, not only will the mist of conjecture vanish and science henceforth walk in broad daylight, but there will also be hope of overthrowing disease at its very beginning, through means which vanquish its parasitic source. Indeed, already now "Death to Bacteria" is the rallying cry of many of the eager workers in curative as well as in preventive medicine.

Thus far, it must be confessed, we have had, as regards internal medicine, no success in the search after agents which destroy the germs. The articles proposed are as apt to poison the patient as the microbe; some would be even more destructive; and none can be as directly and as completely brought into contact with parasitic life in organs or in the blood as surgeons bring them in contact in their antiseptic treatment of wounds and injuries. But must we despair of conquering these germs? It is not too sanguine to anticipate that if their paramount importance be fully established, the means for their destruction will be found. When has any discovery stood still? Look at the wonderful uses of steam, and remember what it was in the time of Watt. Recall the simple experiments of Volta, of Galvani, and of Franklin and think what the great agency they found has become in these days of electric telegraphs, of electric lights, and electric railways, and of applications more dazzling than the imaginative creations of all the Eastern fairy tales. Reflect that life means progressive development, means the present and the future, not the past; and then venture to say that progress stops, and that it will be impossible to bring under control or to stamp out hosts of diseases by crushing their ascertained minute causes!

The whole science of bacteriology is still very young. The greatest practi-

cal gain has been to the surgeon, and in the better knowledge of disinfectants for the destruction of the noxious organisms outside of the body. In medicine we are still for the most part groping after the truth, hoping with it to find new lights, new means. And it is not certain that, in the glimpse we have caught of this bewildering microscopic world, we have reasoned clearly about its members. Are the particular micro-organisms seen in special diseases necessarily the specific source? May they not be in some instances causative; in others simply the recipients and carriers of disease; in others again merely the followers or attendants on the unknown something that eludes our search? Further, is not their number as well as their presence important in producing morbid action? What we already feel the need of is not the mere accumulation of observations, but better appreciation of the relative value of the facts. We greatly want here what I may venture to call "scientific prospective;" and scientific prospective must be a method in bacteriology, if this promising science is to become the help we all hope it will be.

There are few subjects in scientific advance which have attracted more widespread interest outside of professional circles than the doctrine of bacteria. In these days of rapid diffusion of knowledge, microbes are being thought about and glibly talked about by many who take general notice of the progress of scientific inquiry. The widest appreciation of the matter is certainly the most desirable. Yet is there not some danger, or rather discomfort, lurking in this, unless we are careful to let go hand in hand with its dissemination, a full appreciation of the relative value of the observations? Will we otherwise not have to face a new form of an old disorder? When I see in popular journals descriptions of the minute organisms in the water we drink, or attached to the food we eat; when I hear the ingenious researches commented on that show some of the worst of them, as of the bacillus of tubercle, floating in the air of places of amusement; when in a literary monthly review of great repute I meet with an able article on the "Creatures we

Breathe,"* and find that an enthusiastic observer, seated in a railway carriage, notes on the closed window of a compartment containing ten persons, upwards of three thousand organisms falling on the square foot in one minute, —I wonder whether fright and terror is to be induced by all this, or what will come from its constant contemplation. I begin to think of new forms of hysteria and of hypochondriasis. I perceive the bacterial hysterical girl; the bacterial hypochondriac. Before me rises the bacterial hysterical girl, pale with fear and going off into spasms under the dread that something she has handled or tasted contains these dreadful parasites. I see the hypochondriac, who for years has been watching his secretions, now armed with a microscope, searching out and counting bacilli. A new sort of self-torture, but also a new, gloomy pleasure has come into the existence of this bacterial Monsieur Argan of the nineteenth century:—

"To him no longer life is as tedious as a twice told tale,
Vexing the dull ear of a drowsy man."

He is taking his share of the advantage of living in a scientific age. I see him confronting his busy medical attendant with comparative tables made up from his daily watchful countings, and I fear I hear the representative of science wishing, under his breath, that he had lived before the introduction of the microscope, lived certainly in the prebacterial period, or had never been born at all.

Thus far we have been regarding the tendencies in Medicine, and the ways that will develop out of them in the near present, in connection with the general foundations of the science. But after all everything comes at last to the bedside for judgment on its worth; and the methods of observation by which Clinical Medicine has grown in the past will continue to be its chief sources of growth. The keen eye, the trained ear, the cultured touch, the collation of symptoms, the correct reasoning, the skilful adaptation of means to cure, will be the same in method;

though new ways of obtaining more complete knowledge by the so-called instruments of precision, by the thermometer, by the sphygmograph, by the spectroscope, and, perhaps, by other instruments embodying physical discoveries of the day which have not been as yet adequately used in Medicine, such as the telephone, the microphone and the phonograph, will be more and more fully tested.

The great advance of our times is in therapeutics, partly through the results of suggestive experiment, partly by the more accurate appreciation of the action of drugs on the economy. Still, as in the past, clinical experience, must be the final test of the value of remedies. Yet it is certain that the scientific methods now employed, will result in therapeutics simpler, and more effective in their simplicity. In the near present, treatment will discard haphazard combinations, and aim at producing results with single remedies, or with remedies so adjusted that their combination brings out the full strength of the one most depended on, and reduces power in directions we do not wish it exerted, as witnessed, for instance, in combining belladonna or the bromides with opium. Again local treatment is likely to be more and more resorted to. Will this make of Medicine a mathematical science? Will it make the successful physician simply an accomplished physicist? Vain thought. Indeed, the methods, even those the outcome of the most conclusive experimental science and of the most perfect mechanical treatment, must ever take cognizance that in treating the sick we are dealing with the man in disease, quite as much as the disease in the man. However more exact our means, however larger our resources, the personal something in the sick the personal something in the physician will never cease to have their power. And the greatest success will always be with the greatest measure of tact, with the quickest appreciation of vital strength, with the magnetic influence which instills confidence and trust with the fullest inspiration of hope, as well as with the courage that knows when to take risks and with the wisdom that knows when to rest.

*Percy Frankland. *The Nineteenth Century*. August, 1887.

A great deal of the improvement in Medicine, especially in therapeutics, is due to the knowledge that many diseases are self-limited, and to the appreciation of the course they run uninfluenced by medical means. This study of the natural history of disease is invaluable; and giving us, as it does, a standard, it enables us to correct the claimed importance of special agencies, and to estimate at their true worth the vaunted cures of exclusive systems. It was through it that the protest of Young Physic against excessive and violent medication became effective. It was through it we began to comprehend the power of Nature. But it has done its work largely; and we must not stand still in that work. Young Physic has become middle-aged, and with its years has thrown off some of its youthful eccentricities. To go on now insisting on the supreme powers of unaided Nature, is to be as much behind the times as to continue in the constant use of disturbing, potential remedies, which the phase of medical inquiry alluded to did so much to discredit. Medicine has advanced, and has given us proved agents, alike for cure and for relief. In the near present the pandering to the belief many of the public still hold so dear, that Nature is all-powerful, that Nature must not be interfered with, will be looked upon as a sign of a weak, not of a sagacious mind. Those who seek counsel will rightly turn to him who knows the limits, while he believes in the resources of his art, and uses that art boldly; and not to him who sits down simply to see what Nature will do, and tries to throw the cloak of a philosopher over the shortcomings of a sluggard. New Medicine condemns these posers as much as the Old Medicine they condemn.

We hear much of what Nature will do without assistance. Will she enable a man to walk with a broken leg? How often does she remove pus from the cavity of the chest? Will she arrest a peritonitis, or keep a perforated intestine quiet as efficiently as opium? Will she check the fierce onset of malaria like quinine; rally a faint heart like digitalis; or quiet the sleeplessness about to end in fatal exhaustion like chloral? Let us stop the

prating about the unlimited power of Nature, and of not interfering with her processes. The same Providence that gave the power is daily letting us find more and more means to help it, when weakened; to repair it, when stricken. It may be in individual maladies still the best course not to attempt radical interference, since the measures to overcome them have not been as yet discovered. It is often impossible with our present knowledge to do otherwise than to husband strength and to allay disturbing symptoms. Each generation will re-examine and determine for itself, in the light of new helps, its influence over particular affections. A generation that has witnessed the introduction of the hypodermic syringe, of the bromides, of chloral, of nitroglycerine, of cocaine, of antiseptics, need not despair of gaining more agents potent for control.

We are in an era in which surgery is becoming the adjunct of medical therapeutics, or acting where medicine cannot act. How far this is to go, time alone can determine. Before many years what can be safely attempted, and what can not, will be fully known. But from the mode of procedure good has come. The history of intestinal obstructions and of peritoneal abscesses is the history of ever advancing success. Extirpation of brain tumours shows alike the increased skill in the recognition of disease and in its treatment. The indications for tapping the chest and the pericardium are becoming better and better defined. The removal of growths in the larynx cures cases beyond the reach of medicine. The extirpation of enormous diseased spleens has been in some instances successful. There is, of course, risk that the daring efforts and glowing anticipations of surgeons may lead to attempts which can not possibly succeed. But the method is a method of advance; a method to be used when medical art fails. As internal therapeutics grow in resources, let us hope that the instances of employing surgical means will become fewer. Yet in the near present they will be used, and, assisted by the new and growing surgery of antiseptics, with probably increased ease and surer results.

The practice of the times we are approaching will then be simple, accurate, decided. The leading men of the day show these traits strongly. It will still require on the part of all much labor to attain to this simplicity, this accuracy, this decision. It will require continuous work to sustain it; and, with these methods predominant, many a type, many a familiar figure, will be seen no more. How well I remember some of these dear old acquaintances of my earlier professional days. One in particular, may his kindly soul pardon me that I hold him up to view at all, delightful, chatty, lovingly patting all the children on the head, neat in dress, with a white cravat, a work of art in its way, knowing the last news, indulging decorously in humor that offended nobody, the friend and the trusted practitioner of a large neighborhood. And on the score of simplicity his methods left certainly nothing to be desired. He did not trouble himself with new means of investigation. He had conveniently divided for himself all diseases into three groups, those of the head, those above the diaphragm, those below the diaphragm. Further than this it seemed useless bother and mere refinement of diagnosis to go. Why should he? This plan answered and was sufficient for an opinion. Did you ask him, What it might be above the diaphragm that seemed wrong? a look as near to scorn as so amiable and wise a person could assume, would warn you not to try to fathom the unfathomable. And the treatment was delightfully plain. For the head, ice cloths and purgatives; above the diaphragm, either digitalis, if more particularly the heart was to be influenced, or ipecac for the lungs; below the diaphragm, for the liver and other structures, calomel, for painful affections, opium.

Good old gentleman, he died much beloved and regretted; and it is well he is not here to be worried by the present generation, who will use test-tubes, thermometers, the stethoscope; who like to apply medicine on some scientific basis; who are striving to find out new facts, new methods; and who would have sorely distressed

his easy, pleasant life. But in the interests of our own honor, in the cause of the welfare of mankind, let us thank Heaven that with all his personal charms, all his virtues, the keen appreciation of different ways, now, makes him and his kind forevermore impossible.

In justice, I cannot leave my subject without taking some notice of what the position of Medical Instruction is to be, to keep pace with the improved methods to which we are attaining. It would lead me far beyond my limits to examine this question in detail; but it is evident that medical teaching must conform to the spirit and aims of the developing science. It will lay more and more stress on laboratory work, on bedside instruction, on clinical exercises, on personal training. It will do more and more, what I believe this College was the first, certainly in this country, to do, aim at breaking up the class into small sections for special instruction, so that every one may have the opportunity to learn for himself under skilled supervision. It will, as studies advance, encourage to thoughtful, independent work with scalpel and in the laboratory; that kind of work which caused Soemmering, while a medical student, to earn from famed anatomists, like Camper and Monro, enthusiastic praises for his researches on the nerves at the base of the brain; the kind of work which Black at the age of twenty-four announced in his graduation thesis, revolutionizing chemistry and paving the way for the great contributions of Lavoisier; the kind of work which led Koller but a year or two years since to discover the properties of cocaine; the kind of work which, I say it with feelings of just pride, is about to bear fruit in the publication of a volume of original essays on remedies of indigenous growth, containing a number of the investigations of our students in the laboratory of the Professor of Therapeutics. Progress in medical instruction will lop off many unnecessary studies, followed more particularly in some of the schools of Continental Europe, and having only a remote connection with medicine. It will require of all who engage in professional study mental

training; but it will not too narrowly specify the kind of training, allowing the broadest limits in proof of mental aptitude. It will aim quite as much at educating in the methods of work as at mere supply of knowledge. It will lead to freedom of study; stop the wearying system of constant, so-called progressive examinations, which are regarded as tests of fitness to pass from one branch to the other; and will make one examination, the final one, sufficient, no matter when or how the knowledge has been acquired.

Will advancing methods in teaching dispense with lectures? "Lectures, sir," said Dr. Johnson, "what man would go to hear that imperfectly at a lecture which he can read at leisure in a book?" Lectures of the kind referred to, mere recital without demonstration, enlightened instruction will forego. It will insist upon lectures which are not simply what can be read, upon those which address the eye as well as the ear, upon teachers that are not mere talkers, and if one of this class be found in position, public opinion will call for his removal.

One thing the near present is certain to do: it will demand, that which in this country is the greatest want, a longer time of professional study. This time has been always short; it is becoming more inadequate every year. I know the terrible pressure of the necessity for speedy exertion on those wholly dependant on that exertion. I know the temptations, the desires to be active among the active, striving among the striving, felt all the more keenly in a country so visibly developing everywhere as the result of energetic effort. But I also know the frightful responsibilities of professional life; I think of the bitter self-accusation which comes as the want of full knowledge is felt, of the errors which knowledge gained avoids, of the grateful success it leads to,—and then I am sure that no matter what circumstances seem now to beckon on, in the long run the fullest preparation will be the best for happy life, for worldly success, for conscience.

When the drawback of insufficient time for medical studies is removed, when a broader foundation can be laid

at the Medical Colleges, there will be with us a very bright future for the practice of Medicine. Listen to the statement of one of the most renowned professors in the largest Medical University in Europe, of Billroth in Vienna. What does he in a recent essay* on the state of medical education most bewail? Not an inadequate length of study, not want of learning, but lack of independence of character and energy in the student, blaming the influences of his home life for having caused it. The student is but the practitioner; his traits go with him. What advantage then have you in your very surroundings; what potent influence in the institutions under which you live; what help in, perhaps, the hard circumstances some of you most deplore. They all develop character, self-reliance, love of action; they teach adaptability and the prompt application of knowledge. They give available power; and available power is, for the practical duties of our art, better than great talents, or even than great learning. "Crafty men condemn studies, simple men admire them, and wise men use them," says Bacon. And if to the national characteristic of adapting knowledge readily and using it decidedly, a longer and more complete training is joined, our practitioners may with confidence enter into competition for the palm of Medicine between nations.

My friends: You have enrolled yourself in the great army of workers that is marching in solid column into the Near Present. On cherished bannér borne aloft are inscribed in golden letters the five great medical achievements of a century of active exertion; Vaccination, Auscultation, Anæsthetics, Hypodermic Medication, Thermometry. They present the brilliant victories of peace; the conquest of rich domains of helpful science. Before long the record of more of these victories and conquests must be seen on the silken folds. The veterans who caused them to be placed there are watching the old flag with expectation. May it be that a spirit of independent inquiry and research shall in time lead some of you to add a sixth and a seventh golden line!

*Aphorismen zum Lehren und Lernen der medicinischen Wissenschaften. 1886.

ON THE ETIOLOGY OF PHTHISIS.

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(Continued from Page 10.)

After approaching the subject in a variety of ways, with a remarkable constancy of results, I thought it best to institute a series of experiments with extracts obtained from different phthysical sputa, by such methods as could be least open to objection in respect of complications introduced from without.

(*Method.*)—The sputum was carefully collected in a clean vessel, preferably a closed jar with central hole for the entrance of the expectorated material, such as are used in some of the Edinburgh Royal Infirmary wards. In the selection of the patient the greatest care was exercised: (a.) Only such cases were made use of as showed undoubted signs of advancing phthisis. (b.) No case was accepted where the temperature chart did not record a more or less persistent elevation. (c.) After the first two or three examinations, it was found best to restrict the selection to subjects where possible impurities from smoking were absent.

Similar care was taken in the selection of the sputum: (a.) The sputum was rejected when any foreign admixture was present, such as vomited materials. (b.) It was rejected when saliva was present in appreciable amount. (c.) The reaction of the sputum was tested, and only such admitted as gave an acid or neutral reaction. This last condition was found always associated with a peculiar odor, which may be regarded as *sui generis*. (d.) The presence and approximately the relative abundance of the tubercle bacillus was in every instance ascertained.

The sputum, thus carefully collected for twelve or twenty-four hours, is at once subjected to further examination. Its bulk is measured, and three volumes of rectified spirits are added to it. The mixing process is carried out *guttatim*, so that the operation of the elements of the sputum may be rendered complete and the admixture made as intimate as possible. If the sputum be neutral or but faintly acid, a trace of tartaric acid is added to the rectified

spirits previous to mixing. The whole is transferred to a Florence flask. Its mouth having been protected by a fine muslin rag, the flask is placed in a Koch's steam sterilizer and exposed to a gentle moist temperature of 36° – 40° C. for 20–24 hours. At the end of this time the fluid is carefully filtered, first once or twice through fine muslin, and then three or four times through filter paper, till the filtrate runs off perfectly clear. Its volume is then measured and the whole evaporated down in open beakers to $\frac{1}{5}$ of its bulk (*circa*). This reduces it to the consistence of a more or less muddy extract, varying in color according to that of the original sputum. The latter part of the process is conducted slowly, with the view of driving off all remaining trace of spirits and to prevent the escape of other volatile products. The extract thus obtained was utilized for injection.

With regard to its constitution, it must be observed that it is as pure an extract as can well be obtained of the carefully selected sputum. The only additions made are measured quantities of faintly acidulated rectified spirits. This, in the process of slow evaporation to $\frac{1}{5}$ its original volume, was presumably entirely given off; so that in observing the results we have to deal with the effects of a fairly purified extract of phthysical sputum, *i. e.*, sputum minus the coagulable elements, separated out by the addition of the rectified spirits and the after process of filtration.

It should be further mentioned that the extract when properly prepared is most unstable; and, being extremely liable to the attack of fungi, breaks down in the course of a few days, giving rise to new products. The extract was, therefore, never used for experimental purposes after it had been prepared for three or four days.

Four series of experiments were conducted with the extract so obtained:

1. To observe its effects on the system generally.
2. To observe its effects on the circulation; *i. e.*, on the cardiac rate.
3. To test the antagonistic effects of certain drugs, especially atropine as regards the system generally.
4. To test these antagonistic effects

as seen more especially in the cardiac rate.

It is impossible here to give details of the numerous experiments conducted under these heads, but the general results may be summarized.

Series I:

A. — *On frogs.* — Thirteen experiments carried out with varying quantities, and under a variety of conditions, yield results of striking uniformity; and point to the presence in the extract of a toxic principle, or of toxic principles, of considerable potency. The results differ only in degree, a progressive increase in the intensity of the symptoms being observable with the increased dosage. The general line of symptoms is that of the gradual development of voluntary motor depression. In no instance was a stage of excitement traceable. This condition of depression appears, in part, explicable by a toxic influence exerted on the higher centers. This is evidenced by the general character of the depression, by the sluggish nature of the movements while co-ordination remains little affected, and by contraction of the pupils. The spinal cord appears to be unaffected, the reflexes remaining normal throughout in the less severe cases, and in the graver being unaffected till later on.

B. — *On mammalia.* — In mice, it was found possible to induce distinct symptoms with 3cc. of the extract. These symptoms resembled, in general character, those observed in the frog, and passed off gradually in the course of an hour or two. With increased injection, the intensity and duration of the symptoms were correspondingly increased. As in the frog, the scope of the symptoms suggested implication more especially of the higher centers. There was the same early appearance of gradually advancing depression. This, as before, was not preceded by any trace of excitation. In the course of ten minutes the animal invariably became quieter, the stage of quiescence passing on to more or less complete passivity and disinclination for movement, according to the amount injected. In the lighter cases, this was gradually recovered from. In the more severe cases, it deepened into death, or death followed after more or less complete

approach towards recovery. In addition to these symptoms, common to frogs and mice, certain well marked phenomena were observed. Among the more striking of these should be noted fibrillary twitching of the surface of the body, and convulsive movements of the trunk and limbs. Regarding changes in the respiration, it has to be borne in mind that the estimation of the rate of breathing is always difficult in mice. The general impression, however, was, that after the preliminary excitement, there remained a certain increase in the respiratory rate, to be followed later, when symptoms were sufficiently prolonged, by retardation. In those animals which died after prolonged symptoms, anorexia was a conspicuous feature, while water was drunk freely.

In rabbits, comparatively large quantities of the extract were required to produce urgent symptoms. On economic grounds this line of experimentation was less systematically carried out. So far as they go, the results obtained were in strict accord with those just detailed. Of greater interest, however, in the case of the rabbit, was the effect of daily repeated small doses. Thus, for example, two rabbits were fed on measured quantities of oats and water, and their weights registered for some days, until the daily register became fairly constant. The same conditions were continued, with the addition that once in the twenty-four hours each animal received subcutaneously small injections of the extract. Presumably as a result of this, their weights progressively decreased by amounts varying from one-fourth ounce up to one ounce *per diem*, and the amount of food consumed was reduced to one-half, and on one occasion to one-quarter, of the amount previously consumed in the corresponding time. After some days, the system appeared to grow more tolerant of the morbid material, as it was found necessary to increase the dose to produce the same effect. At the end of ten days, the injections were discontinued; and the weights, without increasing, remained almost constant for a week or two. Then a gradual progression downwards, apart from fresh injection, was observed, each animal

continuing to lose a fraction of an ounce daily, until death. It appears likely that the early loss of weight was due directly to the action of the morbid product, which doubtless led to loss of appetite, etc. This is evidenced by the daily loss of weight, corresponding with the dates of injection and by return to a more constant condition, when the injections were stopped. The later progressive loss of weight, apart from injection, is more difficult of explanation. We may suppose that following the earlier injections a condition of marasmus developed. In neither of the rabbits was there found on *post mortem* examination, the slightest trace of cessation to which rabbits are prone.

Series 2. Effects on the circulation, *i. e.*, on the cardiac rate. A considerable number of experiments were conducted under this head. They prove conclusively the presence of a powerful cardiac depressant. In each instance the fall is striking. Where large doses were used it was remarkable, the cardiac rate being reduced under the influence of the extract from 44 per minute to 18, and even 14 in the course of four hours. Coincident with the decrease in weight, a marked lengthening of the diastolic in relation to the systolic phase was evident. These results, taken along with those of Series 4 (*infra*) imply, I think, that the depressed action on the heart is produced through the medium of the inhibitory fibres, and not by direct action on the cardiac ganglia.

Series 3 and 4. It is convenient in this brief summary to combine the results obtained in Series 3 and 4. In each it was endeavored to neutralize the ascertained depressant effects of the extract, by the exhibition of presumably antagonistic drugs. For the present I limit myself to the results obtained with atropine. The double series yield results in remarkable consonance with those obtained in the earlier series. In the first place, they afford strong corroborative evidence as to both the general systemic and the special cardiac effects of the extract. But, in the second place, they prove that the combined exhibition of atropine undoubtedly modifies these results in a striking manner. Of this

there is evidence in all the experiments, the degree to which such modification is produced varying with the relative quantity of the antagonistic principle. Most perfect antagonism was produced by the combined injection of $\frac{1}{8}$ milligramme sulphate of atropine with .6cc extract. Under such conditions the general systemic effects, easily produced both in frogs and in mice, by .6cc extract, were almost completely absent while the cardiac rate, which .6cc sufficed to depress considerably, remained practically constant. The effects were similar, whether the atropine were exhibited simultaneously with the extracts or at varying intervals before or after. The antagonizing influence of atropine is most strikingly demonstrated in those experiments, where the injection of the extract preceded that of the atropine by a measured interval of time. In such cases the effects of the extract were first of all well defined, and gradually declined on the addition of the atropine. Similar results, though less striking, were obtained when the atropine preceded the extract. It should be added that, in every instance where counter experiments were made with atropine, the extract was first tested, with the view of establishing its physiological action.

This experimental record is necessarily too brief, and doubtless is open to much criticism. But the results at my disposal, which I hope to publish in more extended form, appear to me to justify the statement that from the tubercular sputum there is separable one or more products possessed of well marked toxic properties, these toxic properties being more or less completely opposed by atropine.

The remaining question is, in how far this poisonous principle is dependent on the presence of the bacillus. Might not such toxic effects be produced by extracts obtained from other sputa besides those strictly bacillar? There is, unfortunately, no time to give in full the grounds for my statement; and I must content myself with stating categorically my belief, formed on experimental grounds, that the presence of the bacilli is causally related to the poisonous product obtained from the sputum. I incline also, for similar

reasons, to the belief that there is a relation traceable between the toxicity of the extract and the abundance of the bacillar elements discoverable in the sputum.

On the line of absorption and the ther-

apeutic indications, regarding which I had proposed speaking, I must not dwell. But it may be convenient, in closing, to tabulate shortly the chief points which have been briefly discussed.

THE FOLLOWING TABULAR STATEMENT EXHIBITS THE CONDENSED RECORD OF EXPERIMENTS UNDERTAKEN IN THE COURSE OF PREPARATION OF THIS PAPER, AND SHOW IN A STRIKING MANNER THE EFFECTS UPON THE CIRCULATION OF INJECTIONS MADE WITH EXTRACT FROM PHTHISICAL SPUTUM, BOTH ALONE AND WHEN ADMINISTERED IN COMBINATION WITH ATROPINE.

SERIES 3°.—Effects of Extract on Circulation, i. e., on Cardiac Rate.

EXPERIMENT XXIII. (CONDENSED RECORD.)			EXPERIMENT XXVII. (CONDENSED RECORD.)			EXPERIMENT XXVIII. (CONDENSED RECORD.)		
Injection of .9 cc. prepared Extract into posterior lymph sac of medium-sized healthy Frog (R. temp.) Temp. of room=15°5 C. Heart rate=46 per minute.			Injection of .8 cc. prepared Extract into posterior lymph sac of medium-sized healthy Frog (R. temp.) Temp. of room=10°5 C. Pulse rate=30 per minute.			Injection of .3 cc. prepared extract into posterior lymph sac of medium-sized healthy Frog (R. temp.) Temp. of room=10°5 C. Heart rate=28 per minute.		
TIME.	RATE.	REMARKS.	TIME.	RATE.	REMARKS.	TIME.	RATE.	REMARKS.
P.M.			A.M.			A.M.		
12.15	46		11.0	30		11.0	28	
*12.20	46		*11.2	30		*11.5	28	
12.25	49		11.5	31		11.8	29	
12.30	48		11.7	31		11.15	29	
12.35	46		11.10	29		11.20	28	
12.40	44		11.15	28		11.25	27	
12.45	42		11.25	28	Diastole lengthening.	11.30	26	
12.55	42		11.30	26		11.40	25	
12.57	36		11.35	26		11.45	24	
		Diastole lengthened in proportion to systole.	11.40	25		11.55	24	
1.3	28		11.50	24		12.0	25	
1.10	22		11.55	23	Experiment discontinued.	12.10	26	
1.15	21		12.5	23		12.20	27	Frog beginning to grow restless.
1.30	21				*Injection made.	12.30	27	Effects appear to be passing off.
1.35	20							
2.0	20	Diastole still longer.						
2.10	19							
2.40	19							
3.0	18							
4.0	14	Killed in moribund state.						
5.30	14							
*Injection of extract								

SERIES 4°.—Effects of Extract on Circulation opposed by Atropine.

EXPERIMENT XXXVIII. (CONDENSED REPORT.)			EXPERIMENT XLII. (CONDENSED REPORT.)			EXPERIMENT XLI. (CONDENSED REPORT.)		
Injection of .6 cc. prepared Extract plus 1-66 milligramme Atropine Sulphate into posterior lymph sac of large lively Frog (R. temp.). Temp. of room=15°5 C. Heart rate=44 per minute.			Injection of .6 cc. prepared extract into posterior lymph sac of medium-sized healthy Frog (R. temp.) followed in 35 minutes by injection of 1-66 milligramme Atropine Sulphate. Temp. of room=13°5 C. Heart rate=34 per minute.			Injection of 1-66 milligramme Atropine Sulphate into posterior lymph sac of medium-sized healthy Frog (R. temp.), followed in 25 minutes by the injection of .6 cc. prepared Extract Temp. of room=14° C. Heart rate=34 per minute.		
TIME.	RATE.	REMARKS.	TIME.	RATE.	REMARKS.	TIME.	RATE.	REMARKS.
P.M.			A.M.			P.M.		
12.35	44		11.0	34		12.40	34	
*12.40	44		*11.5	34		*12.45	34	
12.45	44		11.10	35		12.50	34	
12.53	48		11.15	33		12.55	34	
12.55	46		11.20	32		1.0	34-35	Struggling.
1.0	46		11.25	31		†1.5	34	
1.8	44		11.30	29	Evident signs of depression; diastole lengthening.	1.10	33	
1.15	42					1.15	34	
1.25	43					1.20	34	
1.35	43		11.35	28		1.30	34	
1.45	42		†11.40	28-27		1.40	34	
2.0	42		11.45	30		1.45	33	
2.5	40	Frequent struggling.	11.50	33		1.55	33	
2.10	39		11.55	32		2.0	33	
2.20	39					2.10	33	
2.30	39	No marked change in diastole.	P.M.			2.15	33	
2.40	39		12.10	31	Struggling frequently.			
2.50	39		12.20	31				
3.0	39		12.30	32				
3.15	39	Struggling frequently.	12.40	32				
3.45	39		1.10	33				
			1.20	34				
* Injection made.			* Injection of Extract † Injection of Atropine.			* Injection of Atropine. † Injection of Extract.		

CONCLUSIONS.

(1.) In view of the work of Koch, it is impossible to avoid admitting that a causal relationship exists between the tubercle bacillus and the phthisical process.

(2.) The mere predication of this relationship is not sufficient in explanation of the clinical facts and the generally fatal termination of such cases.

(3.) The usually received explanations of the *modus moriendi* in phthisis are insufficient.

(4.) It appears probable that the lethal influence of the bacillus is due to the production thereby of certain poisonous products.

(5.) Clinical and experimental evidence appear to indicate that the morbid secretions from the respiratory surfaces afford a good medium for the growth of the tubercle bacillus and, presumably, for the elaboration of such products.

(6.) Such a product is separable from the carefully selected and prepared sputum.

(7.) This product is possessed of well-marked physiological properties, being eminently toxic to frogs, mice and other animals.

(8.) The toxic properties of the product are, speaking generally, depressant.

(9.) More particularly they include a marked depressant influence on the heart.

(10.) This depressant influence seems to be exerted through the medium of cardio-inhibitory mechanism.

(11.) The toxic action of the product is more or less completely opposed by atropine.

(12.) The amount of the product which may be separated appears to bear a distinct relation to the abundance of the bacillar elements present.

(13.) Absorption of the poisonous product most probably occurs by way of the lymphatic circulation.

NOTE ON ANTIPYRIN IN THE TREATMENT OF SCIATICA.

BY J. C. WILSON, M. D.,

Visiting Physician to the Philadelphia Hospital and to the Jefferson Hospital.

I have recently used antipyrin in three cases of sciatica with gratifying success. This drug is rapidly taking position in the foremost rank of our

agents for the relief of various painful disorders. In fact, its action in certain painful nervous affections is quite as striking as, and decidedly more curative than, its action in fever. The prompt relief often following its use in migraine and other forms of nervous headache, in the pains of tabes, in diffused and localized neuritis, and in dysmenorrhœa, is already widely known among the profession, and its judicious use in these affections has prevented much habitual suffering. I am among those in whose hands it has not proved as successful as other remedies in the treatment of acute articular rheumatism. But in some other painful affections of the joints, especially in the acute inflammatory outbreaks of rheumatoid arthritis, and in the paroxysms of gout, its administration, whether by the mouth or hypodermically, has been followed by prompt and signal relief of pain. In a single case of distressing neuralgia of the rectum, fifteen grains of antipyrin by enema in warm water were followed by relief of pain and by sleep, and two repetitions of the dose in the course of thirty hours brought the attack to an end. I have used antipyrin, in accordance with the suggestion of Sonnenberg, in whooping-cough with positive benefit in decreasing the number and violence of the paroxysms, and the duration of the attack. From its use in whooping-cough to its use in the distressing symptoms of "hay-fever," especially the asthmatic form, is a natural suggestion, upon which I have acted during the past few weeks. In several cases the relief, though temporary, has been prompt and effectual. I have used it in hay fever internally and as a spray (gr. xx-xl to the fluid ounce of water).

The following cases of sciatica may appear less striking to others than to the writer. They are published in brief as examples of the curative action of antipyrin in this disease, and as a contribution to the general fund of accumulated experience by which alone the indications and contradictions for its use may be made plain.

Case I.—M. S., female, unmarried, æt. 29, obliged to work hard as house-keeper, no family or personal history of rheumatism or gout, has suffered

occasionally with trifacial neuralgia, is anæmic, but has regarded her general health as fair; was suddenly seized, June 23d, 1887, with severe pain in back of left thigh, preventing walking and rendering all movement distressing. For three days she was treated by Dover's powder, rest in bed and applications of dry heat, a saline cathartic having been first administered. I saw her on the morning of the fourth day. She was still suffering great pain on every effort to move, and was worn out by loss of sleep. There was tenderness over the course of the sciatic nerve, much increased at the sciatic notch, in the popliteal space and below the head of the fibula. There was no elevation of temperature. A dose of fifteen grains of antipyrin by the mouth was followed by free sweating, considerable relief of pain and a sleep lasting three hours, from which the patient awoke refreshed and hungry. On the same evening the dose was repeated, with similar effect. On the following morning she could turn in bed, a feat not previously possible since the attack began. After some hours, the pain becoming worse, ten grains of antipyrin were given, with the result of moderate sweating and almost complete relief of pain. This dose was repeated from time to time as the pain recurred, at first three, then two doses daily, until pain wholly ceased. On the third day of this treatment the patient was allowed to sit up; on the fourth, to walk about her room; and on the fifth, regarding herself as well, she resumed her household duties.

She was ordered to take a pill of arsenic and iron for some weeks.

On three occasions since June she has had attacks of sciatica, beginning with the same suddenness and intensity. The ten-grain doses of antipyrin have brought these attacks to an end in from twenty-four to thirty-six hours.

Case II.—A medical man æt. 40. Mother suffered with acute articular rheumatism in her youth and from joint pains, on taking cold, all her life. Father has had one or two attacks of sub-acute gout; patient himself has had at least one sub-acute outbreak of gout, and is prone to neuralgia of the face and scalp; health otherwise good.

After being obliged to walk several miles in wet clothing, August 31, 1887, felt pain and stiffness in his left knee. The next day was somewhat lame and walked with difficulty; nevertheless, he started on a journey of two days to his home. The night after reaching home he awakened from sleep with excruciating pain in his left hip, thigh and knee. Slight transient relief resulted from taking a quarter of a grain of morphine, but no sleep. In the morning the case presented every symptom of an acute attack of intense sciatica, severe spontaneous pain, aggravated beyond endurance by movement; exquisite tenderness over the nerve-trunk, a temperature of 100.5° F. Blistering collodion was applied over the course of the nerve from the hip to near the bend of the knee over a surface two inches wide, and ten-grain doses of antipyrin were given whenever required to relieve suffering. Five doses were given during the succeeding twenty-four hours, each being followed by sweating, a great sense of ease and such relief as made change of position in bed possible. The next day only two doses of antipyrin were taken. The temperature fell to normal, and the bowels were relieved by a saline. In all, seventy grains of antipyrin completed the cure. On the morning of the third day the patient limped down stairs and saw patients in his office. The leg was sore and stiff, the blister uncomfortable and the patient felt very weak. No other medicines were taken except six grains of muriate of quinine daily for a week. In five days from the acute onset, seven days from the beginning of pain in the knee, recovery was complete.

Case III.—A lady, 60 years old, in good health, who had never had rheumatism, was caught in a violent storm and drenched. The following day she had severe pains in the right leg from a point about the middle of the back of the thigh to her foot in the course of the distribution of sciatic nerve. She was able to walk to the house of a physician, who prescribed potassium bromide and potassium salicylate, each fifteen grains, every third or fourth hour. At the end of a week the pain had become so aggravated that she was

unable to walk. I prescribed antipyrin in ten-grain doses to be repeated whenever a severe paroxysm of pain recurred. This treatment caused remissions of pain which gradually increased in duration, and was followed by its complete cessation in five days. Ninety grains of antipyrin in all were taken. Some stiffness and weakness remain, but their symptoms are improving under rest and massage.

The foregoing cases were all first attacks, and the first two were of great severity. The immediate relief from pain following the dose of antipyrin was almost as great as I have seen after hypodermic injections of morphine or chloroform; the remissions were as prolonged and the course of the attack far shorter than usual under similar treatment. The best plan of administration in cases of neuralgia, neuritis and other painful affections is to give the dose upon the recurrence of exacerbations of pain rather than at stated intervals. This plan was long since found the best in treating sciatica by analgesics, as hypodermic injections of morphine. Antipyrin in doses not exceeding fifteen grains is well-borne by the stomach, and may be given without fear of endangering the digestion for several days consecutively. The chief contra-indication is feebleness of the circulation. I have seen alarming prostration promptly follow the administration of five grains, in a very fat woman with feeble heart walls.

A PRELIMINARY REPORT OF EXPERIMENTAL RESEARCHES CONCERNING THE INFECTIOUS NATURE OF TRAUMATIC TETANUS.

BY EDWARD O. SHAKESPEARE, A.M., M.D.,
Of Philadelphia. Pathologist to the Philadelphia
Hospital, etc.

[Read in the Section of Pathology of the Ninth International Medical Congress, September 6th, 1887.]

THE author reported in detail a long series of experiments, which are still in progress, and announced the results already obtained. Upwards of fifty inoculations have already been made. Two methods of inoculation have been employed; intra-cranial inoculations after the method of Pasteur in the case of rabies, and subcutaneous

or inter-muscular injections by means of hypodermic syringes.

The inoculations were always made with thorough antiseptic precautions, and with sterilized instruments. In none of the experiments was there any sign of accidental infection, such as suppuration, etc. The material used for inoculation was in general obtained from the medulla or the spinal cord, and cultures in neutral or slightly alkaline flesh-glycerine-agar recommended by Roux for the culture of tubercle bacilli. The tetanus material was taken, under aseptic precautions, from a horse and a mule dead of traumatic tetanus in the veterinary department of the University of Pennsylvania, the brain, medulla and cord being removed one and three hours respectively, post mortem, and immediately kept on ice until used. The inoculation material was usually prepared in the following manner: A small piece of the medulla or cord was thoroughly rubbed up in sterilized distilled water; after the solid particles were allowed for a few minutes to subside to the bottom of the vessel, the opalescent emulsion thus obtained was drawn off by means of sterilized pipettes and placed in small sterilized vials until used, never having been thus kept longer than three hours before inoculation. Eight control experiments were made.

The author concludes his paper as follows:

RESUME OF RESULTS.

1st Series.—Eight rabbits were inoculated sub dura cerebri from a horse dead of tetanus, between August 1st and 18th inclusive. The rabbit inoculated directly from this horse showed the first symptoms of tetanus within 15 hours and died of well-marked tetanus within 48 hours after inoculation. Both the period of incubation and that of death became markedly shortened in continuing the inoculation from rabbit to rabbit.

2d Series.—Four rabbits were inoculated sub dura cerebri from the same medulla of horse. The rabbit inoculated directly from the horse showed the first symptoms of tetanus within 20 hours, and died within 48 hours after. Continuing the inoculation from rabbit to rabbit, the period of incubation

and of death became markedly shortened.

3d Series.—Four rabbits were inoculated sub dura cerebri from the same medulla of horse, after it had been kept on ice a day longer. The rabbit inoculated directly from the horse showed the first symptoms of tetanus within 24 hours and died within 48 hours after inoculation. Continuing the inoculations from rabbit to rabbit, the period of incubation and of death became markedly shortened.

4th Series.—Three rabbits were inoculated sub dura cerebri from the medulla of a mule dead of tetanus, with the same results as in the preceding series.

5th Series.—Seven rabbits were inoculated under the skin and into the muscular tissue of the back, from the medulla of the horse above mentioned. One died within 18 hours and another died within 10 days, but neither of them showed any signs of tetanus. A rabbit inoculated sub dura cerebri from the medulla of the latter on August 15th, is still living and well on September 4th.

6th Series.—A rabbit which had been inoculated under the skin directly from the horse on August 1st, was eight days afterward inoculated sub dura cerebri from the medulla of the last rabbit of the 3d series. It became sick and died promptly of tetanus within the shortened period. A rabbit inoculated sub dura cerebri from its medulla, showed signs of tetanus within 20 hours, but did not die until five days after inoculation.

7th Series.—Six rabbits were inoculated sub dura cerebri from emulsions of spinal cords of rabbits, which had died of tetanus within the shortened period above mentioned. These cords had been treated in a manner similar to that employed by Pasteur for the attenuation of the virus of hydrophobia during periods varying from 3 to 15 days. Five of them died of marked tetanus, the symptoms appearing and death occurring within periods longer than those of the corresponding rabbits from which the medulla had been taken, and usually proportional to the length of time the cord had been drying. One of the six showed doubtful

symptoms, but nevertheless very promptly died.

8th Series.—A rabbit was inoculated sub dura cerebri from the medulla of a rabbit which had died after inoculation from the cord which had been fifteen days drying. It showed the first signs of tetanus in 40 hours, and it died of tetanus 7 days after inoculation. A rabbit was inoculated sub dura cerebri from the cord which had been drying 14 days, and it died of tetanus in 20 hours. A rabbit and a cow were inoculated sub dura cerebri from its medulla. The former quickly died of marked tetanus. The latter died, without marked symptoms, within two days, and from the autopsy it seemed probable that injury to the brain had been the cause of death (there had been great difficulty in performing the operation of inoculation). A young rabbit, inoculated sub dura cerebri from this cow's medulla, died within 16 hours, but showed no signs of tetanus; and another rabbit inoculated sub dura cerebri from the medulla of this rabbit, August 27th, is still living and quite well, September 4th, never having shown any signs of illness.

9th Series.—Three rabbits were inoculated sub dura cerebri, September 1st, from spinal cords of tetanus which had been drying respectively 23, 27 and 28 days (these cords were the same as those which had been drying longest, mentioned in the preceding 7th series). The rabbits inoculated from the 23 and 28-day cords showed no signs of illness up to the time of the last observation, September 4th. The one inoculated with the 27-day cord, for the first time showed stiff jaws and difficulty in eating on the afternoon of September 4th.

10th Series.—Three rabbits which had been inoculated under the skin on the 18th of August and had remained perfectly well, were inoculated sub dura cerebri, September 1st, from the same cords mentioned in the 9th series. The rabbit inoculated with the 23-day cord was found dead the next day, but it showed no signs of tetanus either externally or at the autopsy. That of the 28-day cord showed stiff jaws and would not eat, for the first time, on the afternoon of September 4th. That of the 27-day cord showed no sign of

illness up to the last observation, September 4th.

11th Series.—Three rabbits were inoculated sub dura cerebri, August 31st, from cultures started from the horse's brain, August 1st, and renewed once, viz: on August 20th. One of them has remained quite well up to the last observation, September 4th. One remained quite well until September 2d, afternoon, when it showed intermittent trismus and indisposition to eat. This condition continued up to date of last observation, September 4th. One showed for the first time slight signs of tetanus, September 3d, and had them up to date of last observation, September 4th.

12th Series.—A trial attempt was kindly made for me by Dr. L. Wolff, Demonstrator of Medical Chemistry in the Jefferson Medical College, to isolate a ptomaine from the brain medulla and cord of the mule and cow above mentioned. The Stass-Otto method was more or less closely followed. The product obtained from the mule was injected under the skin of the back of two rabbits. They became very ill within twenty minutes, being slightly paralyzed and exceedingly restless, frequently getting down flat on the belly and up again, and jerking the hind legs up, but they showed no marked convulsive movement or trismus. They entirely recovered within six hours. The product obtained from the cow produced but little and only very transient and indefinite results.

NOTE:—Several autopsies of the tetanic animals were made, and they invariably showed intense congestion of the lungs, tracheæ and kidneys. Sometimes there was congestion, oftentimes none at all, of the central cerebro-spinal nervous system. The mucous membrane of the stomach was apparently normal.

Conclusions drawn from the author's personal researches:

1st. Traumatic tetanus of the horse and mule is, at least sometimes, if not always an infectious disease, transmissible to other animals, and therefore possibly also to man; and during the progress of this disease a virus is elaborated and multiplied, which is capable of producing the same infectious dis-

ease in some other animals when placed beneath the dura mater of the cerebrum.

2d. This virus is contained in the medulla and spinal marrow of the animal suffering with the disease. It is, like the virus of hydrophobia, capable of being strengthened in virulency by inoculation sub dura cerebri from rabbit to rabbit, and, like the virus of hydrophobia, is capable of attenuation by exposure for a sufficient time to the action of dry air at a temperature of summer-heat, and, still again like the rabic virus, its effects are far more intense when the virus is inserted beneath the dura mater cerebri than when injected beneath the skin or between the muscles of the back.

3d. The author reserves his conclusion concerning a prophylactic effect of inoculation of the attenuated virus until the completion of experiments which are at present in progress.

Conclusions drawn from the author's experiments when correlated with those of Nicolayer, Curle and Ratone, Rosenbach, Ferrari, Flügge, Hochsinger and others:

Traumatic tetanus of the lower animals and of men, at least sometimes, possibly always, is a specific infectious disease due to the action of a specific infectious virus which exists in the tissues at the seat of infection, in the blood and in the central cerebro-spinal nervous system.

In view of experimental evidence which we possess at present, and of many unassailable observations of numerous surgeons and veterinarians, there seems to be ample warrant for the admission that not infrequently tetanus in man is acquired directly and indirectly from some of the domestic animals by which he is surrounded, and notably from the horse.

INTERMITTENT ŒDEMA OF LIPS.—MATAS, in the *N. O. Med. and Surg. Journal*, describes a case of œdema of the lips, in which the swelling made its appearance daily at 8 to 11 A. M., and subsided by 4 P. M.

The surroundings were malarial. Quinine, in full antiperiodic doses, effected a cure. The urine was examined, but no albumen detected.]

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

CLINICAL REMARKS BY WM. OSLER, M. D.,
Professor of Clinical Medicine in the University
of Pennsylvania; one of the Attending Physi-
cians to the Hospital, etc.

[Reported by Wm. H. Morrison, M. D.]

TYPHOID FEVER, CASES ILLUSTRATING RELAPSE AND NERVOUS SYMPTOMS; CIRRHOSIS OF LIVER, LATENCY, FATAL HÆMORRHAGE FROM RUPTURE OF A DILATED OESOPHAGEAL VEIN.

Two cases of typhoid fever are shown to the class:

Case I. illustrates an important point in connection with the history of this disease, namely, relapse. She was admitted six weeks ago, and as the temperature chart indicates, had a well-characterized attack of typhoid fever. We cannot distinctly ascertain how long she had been ill previous to admission. When she was brought to the hospital, the chief symptoms were pulmonary. She had a most intense bronchitis, involving especially the smaller tubes. Rales were heard throughout the lungs, and she was cyanosed. We were at first rather in doubt whether we had to do with a simple pulmonary trouble, or with a complication of typhoid fever. The spots, however, soon appeared, and the disease ran a characteristic course. About three weeks ago, her temperature became normal, and remained so for one week. It was then noticed that she was not so well, and the temperature rose to 102° , and there has been since an evening rise to 103° or 105° , with marked morning remissions.

You must carefully distinguish between a post-typhoid elevation of temperature and a positive relapse, and it is to this point I would especially call your attention. Post-typhoid elevations of temperature occur quite frequently, and may take place within ten days or two weeks after the evening temperature has reached normal. Probably, the most common cause is some indiscretion in diet. A return to solid food is sometimes followed by a slight rise. Sometimes mental excitement or worry will cause it. At times, after allowing the patient

to see his friends or to transact business, you will find that the temperature will go up and remain above normal for a few days. In one or two instances, I have seen constipation induce a rise of temperature. In these cases the elevation of temperature is usually the only symptom. There may also be increased frequency of the pulse. The fever, however, is usually transitory, and there are not the well-marked symptoms which characterize the relapse, which, when typical, is a repetition of the primary disease. The temperature rises gradually, and may attain a maximum as great as in the original attack. There is usually abdominal tenderness, often diarrhœa and frequently a re-appearance of the rose-spots. This patient has certainly a relapse which is running a very mild course. The eruption has been well defined, and some spots are still present upon the abdomen. There has been no special abdominal tenderness, and she has had no diarrhœa. She had no recurrence of the bronchitis, but the character of fever and the distinct eruption are sufficient to establish the fact that we are dealing here with a positive relapse, and not simply with a post-typhoid elevation of temperature. There was another interesting feature in this case, namely, that when the relapse occurred she had attacks of epistaxis. The course of the relapse is usually, as I have stated, a repetition of the original attack, but you may meet with many variations. As a rule it is milder, the temperature rarely reaching the same height, and the course of the disease is rarely so prolonged. The majority of cases do well, and a fatal termination is not so common as in the primary attack. In this patient the original attack was mild, and the probability is that she will do well.

Case II.—Of the seven or eight cases of typhoid fever in the wards, this, perhaps, has been the most severe. The patient was admitted to the hospital eight days ago. There is nothing special in his family history, and his personal history is excellent. He was compelled to give up work sixteen days ago. The illness began with stiffness in the neck and soreness over the

eyes. He did not have much pain in the back or the legs. There was pain in the stomach, and the bowels were constipated, and for the relief of this pills were taken and the bowels moved freely. He also suffered with epistaxis, and thirteen days ago was compelled to go to bed.

When admitted to the hospital, the face was flushed, the eyes were bright, and he was quite rational. The temperature was 103.4° , the pulse a little over 100° , not dicrotic, and the respirations were not increased in frequency. Examination of the abdominal and thoracic viscera gave negative results. There was neither diarrhoea nor rash. Since admission the fever has been persistently high. He is now at the end of the second week of the disease. The eruption has been quite characteristic, not copious; the abdominal symptoms have been slight, as in most of the cases this autumn. The abdomen is slightly distended, and the spleen is somewhat enlarged. The most serious symptoms which this patient has presented have been those relating to the nervous system. If you watch him for a few minutes you will see that he is very tremulous. This began early in the case. It is best noted about the face, and when the patient responds to a question you will see that the muscles are quivering. When he protrudes the tongue, it trembles. The muscles of the hands and arms are in a state of jactitation, —subsaltus tendinum. This, as a rule, indicates profound involvement of the nervous system. He has had also pretty active delirium. He has attempted to get out of bed, and has had wandering, sleepless condition at night. He has not been in that torpid, heavy, stupid state which is seen in many instances of typhoid fever. The mental condition in the severer cases of the disease is usually one of stupor or semi-coma, or it is one of active delirium. Of the two the semi-comatose condition, as a rule, carries a more favorable prognosis. The active delirium is more serious.

A special condition calling for treatment in this case has been the persistently high temperature. He has been given antifebrin, and it has acted well,

reducing the temperature two or three degrees in as many hours. Yesterday the temperature at 8.20 A. M., was 104.4° . He was then given eight grains of antifebrin and the temperature was reduced to 100° by 11.50 A. M. Three days ago, the same dose of antifebrin reduced the temperature from 104° to 100° within three hours. The drug seems to have acted satisfactorily as regards the reduction of temperature, but it has the unfavorable effect, which most of these new antipyretics have and which quinine has not, namely, that they produce profuse sweating, which is most distressing to the patient. The patient after the use of one of these drugs may be drenched with sweats as copious as those of phthisis. I have stopped the antifebrin and have resorted to sponging. This I think will suffice to keep the temperature down. Another symptom which has called for special treatment in this case is cardiac weakness. The pulse has been frequent and feeble, and for this we have given alcohol in repeated and large doses, twelve to fifteen or more ounces in the day, and it has had an influence in quieting the nervous disturbance and also improving somewhat the vigor of the heart's action.

CIRRHOSIS OF THE LIVER.

I have recently shown you two instances of hemorrhage from the stomach in middle-aged men, possibly due to cirrhosis of the liver. Since then I have had several other cases under observation. Two of these cases are quite interesting and illustrate a point on which I wish to speak, namely, the latency of the affection. One-third, possibly one-half, of all cases of cirrhosis of the liver coming under observation in any large hospital are met with for the first time on the post-mortem table. There may have been no special symptoms or the patient has complained of other conditions, and at the autopsy extreme cirrhosis may be found. Of this there have lately been two interesting illustrations. A man was admitted into the drunkards' ward with acute alcoholism and pneumonia and died at the end of twelve hours. He was slightly jaundiced, not more so, however, than is frequently seen in

pneumonia. He had no œdema of the feet and no dropsy of the peritoneum. At the post-mortem we found in addition to the lesions of pneumonia, extreme cirrhosis of the liver. The organ was very irregular, and in the condition of advanced interstitial hepatitis. The man had apparently presented no symptoms of this affection.

The second case was that of a man aged 44, sent from the surgical wards on account of sudden hemorrhage from the stomach. He vomited three or four pints of blood, and died within a few hours after admission to the medical ward. When I saw him he was comatose, and the only thing detected on physical examination was extreme reduction in the area of liver dullness. He had apparently had no symptoms except the dyspepsia which all chronic alcoholics have. At the autopsy we found the following interesting condition:

The body was fairly well nourished; there was a small ulcer on the leg, for which he had been under treatment in the surgical ward. There was no œdema of feet; no fluid in peritoneum. Left lobe of liver two inches below ensiform cartilage. Heart and lungs normal. Stomach did not contain blood (a point of interest as he was stated to have vomited the blood); the mucosa was pale; no erosions. Veins at the cardiac end much dilated. Œsophageal plexus of veins very prominent, and several large branches were directly continuous with those in the stomach. For three-fourths of the tube the submucous veins were dilated. On the posterior wall was a long varicose vein as thick as a small quill, and at one point this presented a greyish white spot, elevated and covered with a thrombus. A small probe passed into the vein came out through this spot, which represented a laceration in the vein, and no doubt from this had come the bleeding.

The liver weighed three pounds; was nodular, tough, and on section showed an advanced grade of cirrhosis; the portal canals were much constricted, and the interlobular connective tissue much increased. The diaphragmatic plexus, the veins of the suspensory lig-

ament, those of the lateral peritoneum, and particularly those over the kidneys were enlarged. The hemorrhoidal vessels were not very much dilated. The vena azygos was large.

In both of these cases the cirrhosis was extreme. The contraction of the ultimate branches of the portal vessels in the liver substance was most marked, and yet there were no symptoms of portal obstruction. The point I desire you to remember is this: that if in any case of cirrhosis the collateral circulation is established, then so long as it is *effectively* maintained, so long will the characteristic symptoms of cirrhosis be absent. There may be no dropsy, no jaundice, and no extreme dyspepsia. In both of these cases the collateral vessels were very distinct. It is chiefly through the diaphragmatic and œsophageal veins and the communication with the mesenteric and lumbar veins and by hemorrhoidal veins that the collateral circulation is maintained. In both cases, the anastomoses of these vessels were extensive enough to prevent engorgement in the portal circulation which is the effective factor in producing dropsy. Dilatation of the œsophageal veins in cirrhosis is a well recognized condition. Communication between the œsophageal and diaphragmatic veins and the union of these with the azygos veins aids materially in carrying off from the stomach, from the spleen and even from the liver itself, a large quantity of blood which under other circumstances would pass through the portal circulation. Rupture of an œsophageal varix is a rare but well recognized mode of death in hepatic cirrhosis.

PRESENTATION TO PROF. HENRY H. SMITH.—A pleasing incident of the late Congress was the presentation to Dr. Henry H. Smith, of Philadelphia, of a handsome onyx vase, highly ornamented, in acknowledgement of his inestimable services as Chairman of the Executive Committee. Dr. Wm. H. Lloyd, of London, presided. Dr. E. A. Wood, of Pittsburgh, made the presentation address and Dr. Jeffrey A. Marston, of the British Army, followed with appropriate remarks.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, OCT. 15, 1887.

EDITORIAL.

**LÆVULOSURIA, OR NON-GLY-
 COSURIC DIABETES.**

In the course of the discussion on Dr. Pavy's paper at the Philadelphia County Medical Society, Dr. Kleen, of Carlsbad, reported an interesting case of lævulosuria. The patient, a lady, 50 years of age, had at times a reducing substance in the urine, which answered to all the tests of glucose, except that it rotated the light to the *left* when examined with the spectroscope. This substance had previously been found in her urine by Prof. Seegen, who pronounced the case one of lævulosuria, and he had found as large a proportion of the substance as three per cent. When seen by Dr. Kleen, it did not appear to be present in larger proportion than one or two parts in a thousand, and for long periods was entirely wanting. It was first observed after a meal consisting largely of sweet fruits, principally pears.

Dr. Kleen makes use of an interesting observation of Worm-Müller in making a diagnosis of glycosuria. This observer has shown that glucose administered in large doses, even in healthy persons, will pass over in small quantity in the urine; while in diabetics the quantity discharged by the kidneys is very much greater after eating glucose. He also noticed that the other varieties of sugar when taken to excess will pass over unchanged into the urine even of healthy persons, while in diabetics at least some portion of them passes into the urine transformed into glucose.

In this circumstance, Worm-Müller believes that he has established a point of difference between persons suffering with real diabetes and those whose urine, while under ordinary diet, presents traces of glucose, or only occasionally responds to the ordinary reagents. This, Dr. Kleen said, had coincided with his own experience. Patients frequently came to him whose urine, especially after alcoholic excesses, or after rich meals consisting largely of starchy food or cane sugar, showed traces of a reducing agent responding to the tests for glucose. In such doubtful cases he usually administers a large dose of cane sugar, and proceeds to test the urine; if he finds no glucose, or only slight traces of it, he considers these cases distinct from true diabetes, though it possibly may indicate a propensity to that disease. In this case of lævulosuria, some portion of the cane sugar passed unchanged into the urine; and a decided dose (gr. 100) of glucose did not produce more than a very slight increase in the amount of the reducing substance in the urine. As she objected to further experimentation, it was not ascertained whether the administration of lævulose by the mouth would increase it or not; this remains for further investigation.

The case was not, strictly speaking, one of true diabetes, but rather belongs to the large group of cases where a small amount of sugar continues in the urine for years in healthy or nearly healthy individuals. In such cases only the excessive use of starchy or saccharine food is to be avoided.

ANTIPYRIN IN NEURALGIA.

WE have used antipyrin in four cases of neuralgic pain, in accordance with Germain Sée's recommendation. In one case of supra-orb-

ital neuralgia instant relief followed the administration of two-grain doses, in hot water, every two hours.

In a case of hemicrania, the seat of most intense pain being in the left temple, the same result ensued. In a recent case of lumbago the relief was sufficient to enable the patient to go out on the second day. But in a severe case of inter-costal-humeral neuralgia, with functional irregularity of the heart, the drug failed, even when increased to five grains. This case lasted six weeks, and then the pain slowly declined, while the patient was taking iron; but we are doubtful if the improvement could be attributed to the latter drug.

We have met no neuralgias so intractable as those affecting the left shoulder and the nerve of Wrisberg. Nitro-glycerine appeared to benefit one case, but on reviewing our notes we find that the attack had continued for six weeks.

The nature of this left-shoulder pain is obscure. It is rare, as we have but three cases in our records. One case was that of a youth; cause unknown. The second was that of a man sixty years of age, with arcus senilis, and other evidences of a life of severe labor and indulgence in alcohol. The third patient was a lady, fifty years of age, with the cardiac disorder above noted. In each case the pain continued without intermission for six weeks, then slowly subsided. The pain was neuralgic, severe, without febrile symptoms somewhat worse every alternate day, yet unaffected by quinine in doses sufficient to produce cinchonism.

In none of these cases could we affirm that the treatment employed had any marked beneficial effect; although the constant current produced a temporary amelioration.

W. F. W.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE MONTH OF CONGRESSES—CHRONIC CONCUSSION—PREVENTION OF CONSUMPTION—PAPAIN—SACCHARIN—ASPIRATION OF THE BLADDER THROUGH A CAPILLARY CATHETER—M. PASTEUR ON LORD DONEVAILE'S DEATH—MICROGENESIS IN FOUL AIR—ETC.

This has been a month of Congresses. First in order of time came the British Association meeting at Manchester; then the International Medical Congress at Washington; then the Sanitary Congress held by the Sanitary Institute at Bolton; then the "Red Cross" Congress opened at Karlsruhe on September 22; and now the International Congress of Hygiene and Demography at Vienna, opened on September 26 by the Crown Prince of Austro-Hungary. The sessions of the last-named will be remembered chiefly for the prolonged discussion on cholera, during which Professor Pettenkofer defended the English system of inspection against the continental method of quarantine with brilliant dialectic ability, but without success, for the foreign delegates were not to be convinced. It is, however, something gained that, in an assembly having so much of an official character, one of the chosen orators at the inaugural meeting, and a man of such worldwide reputation as Herr Pettenkofer, should make use of such expressions as these:

"Many physicians and officials still believe that the English are responsible for the cholera coming to Europe from India through the Suez Canal, as for commercial reasons they dislike quarantine and similar measures. This opinion is, however, clearly refuted by the fact that we were frequently visited by the disease before the Suez Canal was opened, and that since that time the epidemic has appeared in many European countries, while Great Britain, which now stands accused and has suffered much through cholera in former times, now remains free of it. Why do the English, in spite of their enormous traffic with India, where the cholera is never extinct, not transfer

the disease to their own country? On looking more closely into the matter, it must be admitted that England's immunity from cholera since 1866 is not caused by quarantines and other expensive obstructions to international traffic, and it is to be hoped that Italy, France, and Spain, as well as Russia, Germany, and Austro-Hungary, will follow England's example."

At the Sanitary Institute Congress several papers possessing a good deal of medical interest were read. Dr. Russell Reynolds, who has long enjoyed a large practice in nervous diseases gave an address on the classification of preventable causes of disease. The two main heads of his classification were (1.) causes inherent in the individual, viz., hereditary constitution, sex, age, and temperament, and (2.) Influences which disturb the balance of income and expenditure. Under the latter head he invited greater attention to the influence of the income and expenditure of the "imponderables" heat, light, and electricity, and then commented on the often repeated physical concession of the body as a whole. "Accidents" show us, he said, what violent concussion may effect in one moment; but daily life points out a more serious danger than accident can be. A great amount of shaking and knocking about may be borne by some with impunity, but there are hundreds, nay, even thousands, who are now steadily, slowly but surely damaging themselves by constant traveling, and especially by railway. Such traveling is often accompanied by hard work, much worry, and exposure to the changes of temperature, which make up what we are pleased to consider as, and call, "our climate." But beside and above all these, the mere recurrence of shaking or "shock" is observable enough. The most prominent effects are irritability of temper, restless fatigue, want of power of application, defective memory, want of confidence, and want of judgment, with insomnia or uneasy sleep, and depression of spirits. The jar of frequently stopping, suburban trains is more commonly and quite as seriously damaging as are the occupations which lead man to travel many

hundreds of miles per week. Crying children who will not be rested by a gentle rhythmic movement may be shaken to something like sleep by a vigorous nurse, and so may the busy man who, paper in hand, jumps into a first-class carriage at the end of a day of work and worry, and is concussed into a sort of coma by six or seven minutes of the train. In the early stages of such troubles, some modification of the daily mode of transit may be of service; but when the discomforts have gone to the point of destroying sleep, appetite, and relish for work, nothing but an absolute cessation of the traveling is of the smallest service.

There is another side to the question however and the busy man who spends his day in the ceaseless racket of a city so badly paved and so otherwise dusty and foggy as London, may think the undisturbed sleep in the fresh country air cheaply bought at the cost of half an hour's gentle concussion in a comfortably cushioned railway carriage.

Dr. Ransome, F. R. S., of Manchester, discussed the prevention of consumption in a very able paper before this Congress. The annual mortality in England and Wales is still about 70,000, and Dr. Ransome calculated from this that nearly 200,000 persons are constantly suffering with the disease; yet the rate is distinctly declining, as he showed by statistics from two sources. In England and Wales the annual rate of mortality in the three years, 1858-60, was 2567 per million persons living; in the three years, 1881-83, it was only 1846. In Massachusetts in the year 1857 it was 3950; in 1883 it was 2990. He quoted with approval Louis' dictum that few persons are born necessarily to die of the disease, and maintained that the influence, not only of heredity, but also of climate, exposure to cold, and to irritating dusts had been exaggerated.

As to climate he said it had now been shown to be almost entirely without influence except so far as it permitted or discouraged an almost entirely open air life. Wherever human beings congregated together, in all climates, and in every part of the habitable globe, there is consumption to be found. It

is as Dr. Lombard says "a ubiquitous malady.

As to exposure to cold he quoted the statistics of the British Army. The phthisis that at one time carried off so many of the finest soldiers of the British Army, was not brought on by starvation, or privation, or exposure to hardship. It occurred for the most part when they were not on active service, but in the time of peace, when they were well cared for in every material respect, far better in fact than the half-starved artisans and agricultural laborers, who only died at one third the rate that they did. Again, the poor fishermen of Iceland, and the hunters and trappers of North America, the nomad tribes of Asia and Africa, the wretched natives of Australia, all these people escape the disease almost entirely, whilst half the deaths of the well-protected, well-clothed, adult inhabitants of towns, are from this cause. The Highlanders who inhabit well-built houses on the mainland of Scotland are subject to the same rate as the other inhabitants; whilst the ill-fed, ill-clothed fishermen of the Hebrides, who are of the same race, hardly ever contract the disease.

Mere exposure to cold and wet did not, he contended, ever tend to produce diseases of the lungs of any kind. It has been calculated that in Manchester people die of these complaints at more than three times the rate that they do in breezy Westmoreland. As to irritating dust, he said that it induced a state of the lungs favorable to the reception of the specific organism, in the importance of which Dr. Ransome fully believes on the following grounds: (1) Its almost constant presence in tuberculous cases; (2) Its absence in all other diseases; and (3) the production of the disease by inoculation with pure cultivations of its colonies. While admitting the notable influence of damp soil, he insisted especially on the influence of foul air in dwellings and workshops, and on overcrowding and imperfect ventilation.

Assuming that the most important ingredient of such foul air was the tubercle bacillus, Dr. Ransome pointed out that the theory of direct transference, either by the breath or by dried

and pulverized sputum, did not fit all the known facts, especially the influence of dry soil in diminishing the incidence of phthisis. We were yet, he said, far from having a complete knowledge of the natural history of the microbe, and he ventured the hypothesis that it may gain in virulence by a short sojourn outside the body, in the presence of organic compounds favorable to its existence, and contained either in impure air or else in air rendered foul by respiration. In this case the bacillus of tubercle would fall into the same category as the microbes of enteric fever and cholera, and whilst scarcely at all infective from person to person, it would gain the power of reproducing the disease by a sojourn for a shorter or longer time in some medium favorable to its development. If high temperatures are absolutely needed for its existence it might find them in some nook or corner in common kitchens and living rooms inhabited by many of the poor inhabitants of our towns. It is possible that all the components of expired air except the oxygen may take part in sustaining the existence of the microbe. It seems probable, from its continued existence in decomposing fluids, that it is one of those bacilli whose life is fostered by carbonic acid. We can see at once also that aqueous vapors charged with organic matter would be eminently fitted to sustain its existence. The nature of the organic matter contained in the breath is not yet fully ascertained; it is probably partly gaseous and partly solid. It certainly contains numerous solid particles; some simply disintegrated organized material, some dried up epithelial scales, and in some diseases, as in measles and whooping cough and phthisis, the specific organisms of the disease. Its quantity is indeed very small; Dr. Ransome had found that only about 0.2 of a gramme is excreted per diem by healthy adults, or 0.4 gramme per metre of expired air; but this is 500 times as much as Dr. De Chaumont found in the outer air, and when condensed upon solid bodies it often forms a perceptible foully-smelling film, and we know further from Dr. Hammond's experiments that it is virulently poisonous, and it would probably sustain the life of the bacillus.

The measures which he recommended for the prevention of consumption were: 1. As far as possible the disinfection or destruction of the phthisical expectoration; 2. The discouragement of marriage between phthisical individuals; 3. The prevention of irritating dusts in workshops, or, at any rate, the adoption of means for sweeping them away from the mouths of workpeople, as is now most universally done in the workshops of Sheffield; 4. The discouragement of stooping or confined postures during labor; 5. The better drainage of impervious soils; and 6. The provision of thorough ventilation, not only in workshops, offices, warehouses and factories, but also in the dwellings of both rich and poor, and in the streets and crowded alleys in which they live.

Mr. Henry Fenwick strongly recommends papaine in syphilitic ulcers of the tongue and throat, especially when mixed with cocaine. The surface of the ulcers and the white patches in secondary syphilis, rapidly clean and begin to skin over. He has used it in lozenges (papaine, $\frac{1}{8}$ gr; cocaine, $\frac{1}{8}$ gr; potass. bicarb., $\frac{1}{4}$ gr). He has also used it in the following way: Mix papaine with a small quantity of glycerine and water, so as to form a thin paste; add a little bicarbonate of potash, and brush ulcers with the same thrice daily. Papaine is coming into use in the treatment of the dyspepsia in infancy and childhood associated with diarrhoea, with stools containing imperfectly digested food. It would seem that Finkler's preparation is best adapted for this purpose.

Samples of saccharin are at length obtainable in this country; it has, I am told, been for several months obtainable in Germany, but only with the proviso that it should not be exported to England. Saccharin is a coal-tar derivative (benzol sulphuric amide). The samples now obtainable have the appearance of a sallow white powder; it is light and flocculent, and on close examination is seen to be crystallized. When placed on the tongue, no taste is observed for a short interval, as it is rather insoluble in water, 1 in 500 parts being required. Soon, however, its intense sweetness becomes very

apparent,—it is said to be 250 times sweeter than sugar,—and this sweet taste persists for some time, only slowly giving way to a slightly bitter after-flavor. Mr. Martindale tells me that it will probably be most convenient to keep it for dispensing purposes in solution in alcohol (4 per cent.). It has a slight acid reaction, and appears to be incompatible with alkalies, a very distinct benzoic flavor being developed. It makes a very elegant preparation with salicin, liq. strychniæ, tinct. nucis vom., and tinct. ferri perchlor., and to a great extent covers their unpleasant flavor. It masks the nauseous taste of cascara, but is not very successful with quinine. Saccharin is, it is said, not in any way altered in the human organism, upon which it produces no effect, injurious or otherwise, though it has a slight antiseptic action. It is excreted by the kidneys unchanged. It will be found to be of great use to diabetics who retain a taste for sugared food, and I am told that it is already coming into use at Carlsbad for sweetening almond cakes and other similar purposes.

Dr. Ward Cousins recommends the treatment of retention of urine by aspiration through a "capillary catheter" which consists of a filiform bougie and a fine protector, very carefully prepared with woven web and gum elastic, and possessing great flexibility and toughness, together with a smooth and highly polished surface. The combination is about eighteen inches in length, and it can be used for pneumatic aspiration by slipping over it an India-rubber tube connected with a glass bottle, fitted with a two-way cork, and a hand-ball air exhauster. The urethra is first injected with warm oil, and Dr. Ward Cousins says that his slender instrument excites very little straining or spasmotic contraction, and cannot possibly inflict any injury upon the canal. As soon as its progress is arrested, it must be withdrawn two or three inches, rotated between the finger and thumb, and twisted down upon the obstruction. After it has slipped through the stricture it is pushed on into the bladder, which is then evacuated with reasonable rapidity into the aspirating bottle.

M. Pasteur has addressed a letter to

the *British Medical Journal* with reference to the death of Lord Doneraile from hydrophobia. He was bitten by a fox on January 13th, submitted for treatment at the Pasteur Institute in Paris on January 24th, and died on August 25th. M. Pasteur attributes the failure partly to the long interval of eleven days between the date of the bite and the commencement of treatment, and partly to the fault that Lady Doneraile insisted that her husband should only undergo the simple and not the intensive method of treatment.

Some curious results were reported at the Sanitary Congress by W. J. S. Haldane. He said that it was rash to assume, as was generally done, that carbonic acid was a certain measure of the impurities communicated by human beings to air. In conjunction with Professor Carnelly, of Dundee, he had made a number of experiments with the micro-organisms presented in the air under various conditions. They showed that in houses the number did not increase in anything like the same proportion as the carbonic acid. Even during a course of crowded popular lectures there was found to be an average of only four micro-organisms per litre, as compared with an average of about three when the room had remained empty. Nor did the number rise beyond six per litre when the room was left unventilated during the lecture, and the carbonic acid rose to nearly 40 volumes per 10,000. This observation alone shows strikingly that the carbonic acid is no measure of the number of micro-organisms in the air of a room. They therefore concluded that the organisms came from the floor and other parts of the room, and found that the cleanliness of the floor had an effect on the number of micro-organisms. On the whole, however, they were satisfied that prolonged habitation had a very important influence, and that the causes under the action of which the room becomes infested with micro-organisms were evidently not merely temporary ones, but had a gradual cumulative action. They delivered a rather telling attack upon the theory that such a disease as enteric fever is easily communicated

by sewer air. From the examination of the air of sewers they found that in some respects it was one of the most free from micro-organisms anywhere in a town. It is in this respect twice as much so as outside air, in summer at any rate. Professor Nägeli, of Munich, showed some years ago that micro-organisms, like other particulate matter, are not given off from moist surfaces, and, as everything inside a sewer is moist, it would not be reasonable to expect micro-organisms to be given off. The belief in the connection of sewer air with typhoid fever rests not on satisfactory evidence, but largely on *a priori* reasoning.

Dr. Francis Ogston, well-known to many generations of medical students at Aberdeen, as Lecturer on and afterwards Professor of, Medical Jurisprudence in Mareschal College for forty-four years, died recently at the age of 85. Dr. Alexander Ogston, the present Professor of Surgery, was his son.

Mr. Richard Quain, F.R.C.S., Eng., F.R.S., died on September 15. He was for a long time Professor of Anatomy at University College, London, and surgeon to the hospital. He was the younger brother of the Dr. Jones Quain who was one of the authors of the famous Quain & Sharpey's Elements of Anatomy, and the cousin of the better known Dr. Richard Quain, the editor of the dictionary.

The epidemic of scarlet fever in London has not yet shown any signs of abatement; the number of cases under treatment increased from 1134 on September 15th, to 1308 on September 22d. The strain upon the resources of the Metropolitan Asylum Board is very severe. The mortality continues to remain at a low rate.

The Middlesex Hospital Medical School has been enlarged, and a residential college for the students has been erected in the grounds. This is only the fourth residential college open to medical students which has been organized in London, and many more are wanted.

The conjunction between the Royal College of Surgeons in Ireland and the Apothecaries' Hall in Dublin is now completed; but it is said that King's and Queen's College of Physicians in

Ireland, which is also conjoined with the College of Surgeons, will take legal steps with the view of breaking up the new scheme.

DAWSON WILLIAMS.

NOTES FROM PHILADELPHIA CLINICS.

Dr. Curtin exhibited a case of carcinoma of the stomach. The tumor could be plainly felt, in the usual locality of the pylorus, and yet the man vomited about fifteen minutes after eating, instead of two hours, as is the case with pyloric obstruction. The lecturer thinks that the man may have a cancer at the cardiac end of the stomach, as well as at the pyloric orifice, causing œsophageal dilatation, but he had not fully made out his diagnosis.

For thirty years Prof. Garretson has found almost invaluable in malarious cases, and as a tonic after capital operations, especially in malarial districts, the following preparation: Put ℥j of red cinchona bark and ℥ss of Virginia snakeroot, broken in small pieces, in a pint and a half of water. Let this simmer down to one pint; then strain and add a pint of Lisbon wine. Give a wineglassful three times a day.

Dr. Bruen exhibited a heart and its large vessels, taken from a patient who died of aneurism of aorta. There was a tumor both on the anterior and posterior aspect of the aorta. The posterior one had so pressed against the trachea as to flatten it, and also the œsophagus. The anterior tumor had pressed on the lung substance until the latter had become gangrenous.

Dr. Hirsch exhibited a case in which the decidua vera remained after labor, and the uterus failed to contract to its normal size. On using the curette a very dangerous hemorrhage occurred, which took considerable trouble to control; but after a few days a second use of the curette removed the membrane and the uterus contracted to its normal size.

In a case of hemorrhagic phthisis, at the Philadelphia Hospital, Dr. Curtin prescribed oil of origanum, gtt. iij t. d. He recommended also the

use of lycopus Virginicus, ℥j to Oj of water, making a decoction and using a wineglassful at a dose. It is a remedy which is very efficacious, though little used.

Dr. Bruen exhibited to the class a liver which weighed over nine pounds. It had a very yellow color and granular surface. The patient had some jaundice and slight abdominal dropsy. With the cirrhotic liver came a complication of pneumonia. The whole course of the cirrhosis did not last over nine weeks.

BLOCKLEY.—Dr. Clara Marshall made an especial clinical demonstration of the discoloration of the vulva and mucous membrane within the vagina during pregnancy. The patient had been pregnant for three months and the parts had a very decided purplish, venous hue.

In a case of chronic uterine inflammation, Dr. Clara Marshall especially recommended the hot vaginal douche with a fountain syringe; using at least two gallons of water, at the temperature of 110° F., and with an interrupted stream, if the patient could bear it.

Prof. Atkinson claims that for sore throat chlorate of sodium is preferable to chlorate of potassium, for the following reasons: It dissolves more easily, it acts more quickly, it is more easily thrown off the system, and it does not affect the kidneys.

Prof. Woodbury at the Medico-Chirurgical recommends Ferrier's snuff in coryza:

R Morphinæ sulphatis..... gr. v
Pulveris acaciæ..... gr. x
Bismuthi subnitrat. gr. l

M.

Among the long prodromal symptoms, frequent in cases of typhoid fever, Prof. Waugh says that one of the most distinctive of the coming fever is a sense of fatigue after eating, followed by swelling of the abdomen and cold sweats.

Dr. Hirsch showed a child which had almost complete paralysis of the left side from forceps delivery. It could be demonstrated, especially when the child cried, as one side of the face was then greatly retracted.

For a mild and sure cathartic divide a Seidlitz powder into four parts and give one double part every fifteen minutes.

In cases of bad odor from fevers sponge the patient twice daily with equal parts of vinegar and water.

Prof. Shoemaker says that in pruritus vulvæ a solution of equal parts of borax and alum gives instant relief.

BOOK NOTICES.

PRACTITIONER'S HANDBOOK OF DISEASES OF THE EAR AND NASO-PHARYNX. (THIRD EDITION OF THE "AURAL SURGERY.") By H. MACNAUGHTON JONES, M. D., M. Ch., M. A. O. (Hon) London, I. & A. Churchell. pp. 176, 1887.

This third edition is practically a new book, being entirely rewritten with numerous cuts (127). A special feature of the present book is the addition of colored plates taken from the author's "Aural Atlas," which represent some of the more commonly occurring morbid states of the tympanum. The work is a marked improvement on the second edition; by omitting matters not of practical importance to the general surgeon, he has added in other directions what must be most valuable knowledge to the general practitioner.

L. T.

A CLINICAL MANUAL OF THE DISEASES OF THE EAR. By LAURENCE TURNBULL, M. D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital. Late President of the Sub-section of Otology of the British Medical Association, etc., with a colored lithographic plate, and 114 illustrations on wood. Second revised edition. Philadelphia, J. B. Lippincott Company, 1887, pages 567. Price, in cloth, \$5.00.

It is pleasant to be able to record the publication of an enlarged edition like the one before us, without increase in price. The work contains a new introduction treating of the general pathology of ear disease, the malformations and congenital defects of the auricle and meatus, and how to treat them. The succeeding 420 pages are filled with valuable matter for the intelligent physician

and present no change. Then follow the subject of deaf-mutism, 67 pages, with notes on treatment, education and the prevention of mutism. The various methods of teaching are given, but the articulation method of teaching, which is now very much employed both at home and in the school, is fully treated of in this work. Dr. Turnbull has always recommended the use of the ear trumpet to assist those who have any hearing at all.

Chapter XX, containing a review of the causes and most successful treatment of the most frequent diseases of the ear, has been rewritten, and is especially valuable to the general practitioner. Chapter XXI, on desquamative inflammation of the meatus, the membrana tympani and middle ear is new, it bestows necessary attention upon a class of cases which appear to have become more frequent. Chapter XXII is on syphilis and mumps as causes of internal ear diseases with their successful treatment by iodide of potassium, jaborandi and its active principle pilocarpin. Mastoid disease and its treatment are fully discussed, and the indications for operation given. The ophthalmoscopic examination in mastoid disease, to which the author devotes a page is very important. The author's experience with the sulphide of calcium treatment in mastoid disease was entirely negative, and he advises opening of the mastoid in every case where we are reasonably certain that cerebral disease is due to caries, or to the retention of pus in the mastoid, antrum, or cells.

There are many who would hesitate to open in every such case, though there are but few who differ with the author, concerning the uselessness of the calcium sulphide treatment.

In the appendix of 38 pages, cocaine as a local anæsthetic is considered; the author has found it useful in ear diseases, and in large and small polyip. Peroxide of hydrogen is next discussed and its value is well illustrated in suppurative conditions. Sexton's operation for the relief of chronic inflammation of the middle ear is condemned, we believe with justice, the risk being considered too great.

Diphtheritic inflammation of the nose

extending to the Eustachian tube and middle ear is considered as a not uncommon cause of deafness. The work concludes with 20 pages on the various and best means of illuminating the eye, ear and throat, illustrated by six figures. The author concludes that the electric light is the best. As a whole the book before us is very valuable, and unlike many so-called clinical manuals, is truly deserving the title; numerous cases are given in almost every division of the book, though nowhere is the subject better illustrated by cases than in the three new chapters. L. I. L.

UNIVERSITY OF PENNSYLVANIA. VETERINARY DEPARTMENT CATALOGUE AND ANNOUNCEMENT 1887-88. Philadelphia. Printed for the University, 1887.

A well printed announcement descriptive of the curriculum pursued in the Veterinary school of the University of Pennsylvania, in which the advantages and requirements of the excellent course are set forth, with a lithographic plate of the buildings of the department, and a plan of the grounds, list of matriculates, graduates and other statistics. An interesting historical sketch of the University of Pennsylvania appears as an introductory. Our readers can obtain this pamphlet by addressing Rush Shippen Huidekoper, M. D., Dean of the Veterinary Department of the University of Pennsylvania, Philadelphia.

MISCELLANY.

FLORA McFLIMSEY'S CONUNDRUM ANSWERED.—In the evolution of the traditional fig-leaf, much skill and ingenuity has been manifested in responding to the universal demand for clothes in civilized society. Since custom and fashion have decreed that the human body shall be almost entirely covered, the material and cut of the habiliments comes decidedly within the purview of hygiene and sanatory medicine. With regard to the material, we note a recent reform instituted by a Dr. Jaeger, of Berlin, who claims that we should dress exclusively in wool. Woollen under-clothes and woollen outer-clothes; wool on the head, wool on the feet; wool by day and

wool by night; wool in summer, wool in winter; wool, wool, nothing but wool.

Perhaps it may be said that there is nothing startlingly novel in the use of wool as a material for clothing; but this exclusive use of the one material is certainly a novelty.

Dr. Jaeger found, as we all do, that only a certain proportion of the clothing found in the markets is composed of wool. He therefore set about completing his system by devising the missing garments to complete the list. His success is something few would have expected. From the heaviest of winter goods to the most diaphanous of summer fabrics, every garment needed by man, woman or child is to be found in his stock, of variety sufficient to satisfy all the demands of taste.

The woollen sheets and pillows are well worth consideration; the dress-goods and other light materials for summer wear resembled cotton or alpaca so much that only a microscopic examination of the fibre would convince us that nothing but pure wool entered into their composition.

But in the shoes Dr. Jaeger's ingenuity is best shown. These are of leather, Waukenphast shape, lined throughout with soft wool. A felt insole being removed, shows the inner leather sole to be perforated with numerous orifices. These communicate with an air space, which open into the outside air by means of a small hole in the heel. This arrangement provides for ventilation. The care with which this is provided for, reminds us that Germans are singularly subject to bromidrosis. So general is this complaint, that one of the standing regulations of the German army compels every soldier to apply daily to his feet an ointment composed of salicylic acid and suet. That ventilation of the shoe will prove a more effectual preventive we have not a moment's doubt.

How far Dr. Jaeger's system will prove successful we cannot say. The advantages in the hygienic direction are very great. But whether the world has progressed in civilization to such a degree that she can be induced to dress for health is dubitable. The imperious demands of fashion, the certainty that

with women the question of appearance will always be settled before that of health or of comfort, renders it probable that with the fair sex the system will not be adopted in its entirety. And yet, when we see how many imitations of fashionable fabrics Dr. Jaeger has made from wool alone, it is difficult to say where the possibilities in this direction end.

To us, as physicians, the matter is well worthy a careful consideration. The advantages of a strictly woollen costume should be fairly tested. It is well known that many northern men find it advisable to wear wool in hot climates. Experience has demonstrated its value in colder seasons. While in New York a few weeks ago, we made a personal investigation of this system, and were very favorably impressed by Dr. Jaeger's arguments.

TREATMENT OF SPINAL IRRITATION.—I soon learned, in my own case, that cold baths were inadmissible, and I invariably prescribed warm baths for my patients coming to Lampasas Springs for treatment. Warmth in any shape, whether atmospheric or in the form of baths, is generally agreeable to patients suffering with any form of nervous affection, particularly with irritation of the cord. Peripheral conditions are capable of modifying the functions and nutrition of the cord.

My attention was early called to the use of nitrate of silver, and I administered it in doses of from one-fourth to one-half a grain, as recommended by the books. The symptoms were manifestly aggravated by the treatment. The fault was in the size of the dose. This accounts for the failure of so many in the treatment of this disease with nitrate of silver. Spitzka does not inform us as to the size of the doses used; but if he followed the formulæ as laid down by most authors on the subject, his doses were too large, and this may have accounted for the failure of the drug in his hands. I reduced the dose to one-eighth of a grain, and then to one-tenth grain, and with the happiest results, both in my own case and in the case of nearly all whom I have treated. It is not to be expected, of

course, that in *tabes dorsalis* a cure could be effected by any means known to science. But it is altogether possible that, if taken in time, the disease might be arrested by nitrate of silver, in one-tenth grain doses, together with tincture of iodine painted freely over the affected part.

This has substantially constituted my treatment of irritation of the spinal cord, with the addition of such other remedies, as *nux vomica*, arsenic, iron, etc., as circumstances seem to indicate. —CARHART, in *The Medical Age*.

A REMARKABLE JUDICIAL DECISION.—One of the most recent promulgations of the Texas Court of Appeals is so absurd that it is worth reproducing. It certainly would not be declared to be law in some other states.

A prisoner was indicted and convicted on the charge of attempting to commit a rape by force, when the facts showed that the attempt had been made by the use of chloroform. When the Court of Appeals came to review this conviction it came to the opinion that the use of chloroform took away the element of force and that the conviction could not stand. The Court arrived at the conclusion that a conviction on a charge of attempting a rape by fraud would have been correct, but to mention force vitiated the proceedings. By the same lucid reasoning if a midnight robber puts a handkerchief saturated with chloroform over the face of a sleeping victim and abstracts his valuables he does not commit burglary, but—embezzles. The Texas Court of Appeals is too technical and absurd. In another recent decision it accomplished the difficult feat of overruling a decision of the Supreme Court of the United States, and it seems to regard reversals as its main function.

AN INTERESTING NOTE IN URINE EXAMINATION.—In the section on Therapeutics and Materia Medica of the Congress at Washington, Dr. J. Gnezdä, of Berlin, read a paper on "The Poison of the Cobra." In the interesting discussion which followed, Dr. Lewin, of Berlin, referred to the effects of various agents upon the spectrum of the blood. He mentioned a case in which the patient

had passed bloody urine just before death. The urine was sent to Dr. Lewin, who found that upon the addition of ammonium sulphide the bands of hæmatin appeared, showing the presence of some reducing agent. This led to further investigation of the case, when it was found that the man had committed suicide by taking chlorate of potassium. An incidental point of interest in the case consisted in the fact that the patient's life was insured in a company which did not pay in case of suicide. The first suspicion of suicide came from spectroscopic examination of the urine, thus showing the importance of these examinations to the general practitioner.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY FROM SEPTEMBER 11, 1887, TO SEPTEMBER 24, 1887.

FIRST-LIEUTENANT JULIAN M. CABELL, ASSISTANT-SURGEON.—Relieved from duty in connection with the Annual Department Rifle Competition at Bellevue Rifle Range, Nebraska. Ordered for duty as Medical Officer at the "Rifle Camp for Team of Distinguished Marksmen," Bellevue Rifle Range.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE WEEK ENDED SEPTEMBER 17, 1887.

SURGEON W. H. H. HUTTON.—Granted leave of absence for thirty days. September 15, 1887.

SURGEON GEORGE PURVIANCE.—Granted leave of absence for thirty days. September 13, 1887.

PASSED ASSISTANT-SURG. S. T. ARMSTRONG.—Granted leave of absence for thirty days. September 13, 1887.

PASSED ASSISTANT-SURGEON A. H. GLENNAN.—To proceed to Charleston, S. C., for temporary duty. September 15, 1887.

ASSISTANT-SURGEON J. H. WHITE.—Granted leave of absence for twenty-seven days. September 13, 1887.

ASSISTANT-SURG. SEATON NORMAN.—Granted leave of absence for twenty days. September 16, 1887.

ASSISTANT-SURGEON F. C. HEATH.—To proceed to Mobile, Ala., for temporary duty. September 15, 1887.

Week ended September 24, 1887.

PASSED ASSISTANT-SURGEON S. H. WHITE.—Promoted and appointed Passed Assistant-Surgeon from October, 1887. September 19, 1887.

ASSISTANT-SURGEON J. PETTUS.—To proceed to Savannah, Ga., for temporary duty. September 20, 1887.

ASSISTANT-SURGEON H. T. GOODWIN.—Appointed an Assistant Surgeon September 22, 1887. Assigned to temporary duty at Norfolk, Va., September 23, 1887.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING SEPTEMBER 17, 1887.

PASSED ASSISTANT-SURGEON RICHARD ASHBRIDGE.—Detached from Constellation and to the Naval Academy, Annapolis, Md.

SURGEON JOSEPH G. AYERS.—Detached from Torpedo Station and waits orders.

SURGEON JOHN C. WISE.—Ordered to relieve Surgeon Ayers at Torpedo Station.

MEDICAL DIRECTOR SAMUEL T. COWES.—Detached from Hospital, Chelsea, Mass., and placed on retired list, September 17.

SURGEON GEORGE P. BRADLEY.—Leave of absence extended six months, with permission, to remain abroad.

Week ending September 24, 1887.

SURGEON H. P. HARVEY.—Ordered to the U. S. S. Mohican.

SURGEON G. A. COOK.—Detached from the Mohican and ordered home.

MEDICAL INSPECTOR C. J. CLEBORNE.—Promoted to Medical Director, September 18, 1887.

SURGEON T. C. WALTON.—Promoted to Medical Inspector, September 18, 1887.

PASSED ASSISTANT-SURGEON BOYD.—Promoted to Surgeon, September 18, 1887.

SURGEON J. R. TRYON.—Ordered to Marine Rendezvous, New York, October 1, 1887.

ASSISTANT-SURGEON J. G. FIELD.—Detached from Marine Rendezvous, New York, and ordered to the Vermont.

Week ending October 1, 1887.

ASSISTANT-SURGEON V. C. B. MEANS.—Ordered for examination preliminary to promotion.

PASSED ASSISTANT-SURGEON E. Z. DERR.—Detached from Navy Yard, New York, and to the Nipsic.

PASSED ASSISTANT-SURGEON RICHARD ASHBRIDGE.—Detached from Naval Academy, Annapolis, Md., and waits orders.

PASSED ASSISTANT-SURGEON A. H. RUSSELL.—Ordered to the Naval Academy, Annapolis Md.

PASSED ASSISTANT-SURGEON C. G. HERNDON.—Detached from Naval Dispensary, Washington, D. C., and to the Enterprise.

PAST ASSISTANT-SURGEON GEO. ARTHUR.—Detached from the Museum of Hygiene, Washington D. C. to the Naval Dispensary.

PAST ASSISTANT SURGEON S. H. GRIFFITHS.—Ordered to the Museum of Hygiene, Washington, D. C.

MEDICAL INSPECTOR J. C. SPEAR.—Leave of absence granted until July 1, 1888, with permission to leave the United States.

PHILADELPHIA MEDICAL TIMES.

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INTRODUCTORY ADDRESS
TO THE THIRTY-EIGHTH ANNUAL COURSE OF LECTURES AT THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA,
BY W. W. KEEN, M. D.,
Professor of Surgery.
Delivered October 6, 1887.

It is always a regret to give the last lecture of the course; so it is always a pleasure to open a new one, with its fears, its hopes and its aspirations. We miss many of the old familiar faces of those who have begun in reality the medical career, but they are replaced by younger and new faces of many who come to us eager to begin the laborious curriculum.

It is my pleasant duty to bid you all a hearty welcome,—from the sunny South, the sturdy North, and the growing West; from our nearest neighbor across the Great Lakes; from our “kin beyond sea,” whether immediate cousins from Britain or remoter kindred from her colonies; from European countries that were in their glory when America was but a fable. It is an unusual pleasure to welcome again the first representative in medicine of the race that then freely roamed over this fair land in barbaric pride of undisputed possession, but that now is recognizing its higher destiny in civilization and scholarly attainments. I

welcome, too, the representatives of a transplanted Africa to the privileges of a late atonement for the evils and the ignorance of bondage, in the broadest, freest and most complete education we can give them. I welcome, too, representatives from the further Southern lands of our Western Continent, and from the primeval civilization of the far East, old when even Europe itself had as yet neither history nor historian. Welcome! thrice welcome are you all to this truly cosmopolitan seat of medical learning, to the oldest and the largest Woman's Medical College in the world!

To any speaker on such an occasion it must recall the days when he too began his medical studies, and perforce provoke a contrast, and with it an envy of your glorious heritage.

Twenty-five years ago I received my coveted sheep-skin. Fortunately it was not a calf-skin, though I have often thought that that would have been the more appropriate symbol of my immaturity,—my “vealiness,” as the Country Parson styles it in his charming essay “Concerning Veal.”—The session then began on the second Monday in October, and the old fashion of wasting a whole week in Introductory, one by the professor of every branch, was just dead in some colleges and dying in others. The college doors shut early in March, not to be unlocked till the next October. The student who came

late was apt to reply with stuttering Charles Lamb when taken to task for coming so late to the India House: "But then you know I go very early." He could enter in November, take a liberal Christmas holiday, and leave late in January or early in February, and yet it was counted as "a year," though really less than four months. Only two years were required anywhere, and identically the same lectures were given each year. They were generally read, and were adorned with few or no illustrations, except in the case of rarely earnest and enterprising teachers. In general, a professorship was apt to be the medical "saint's everlasting rest." There were no laboratories, or laboratory and practical work such as you now get in this college in Physiology, Chemistry, Pharmacy, or *Materia Medica*. Three of my class, who took a meagre course in the spring, in an ill-in fact, I might say an *un*-equipped, ordinary drug-store, were regarded as marvels of diligence; and it was a rare treat indeed when any one was called on to help in private physiological or chemical experimentation.

Although the colleges were closed seven months out of twelve, extra-collegiate courses were given, chiefly in the spring, in practical obstetrics, operative surgery and physical diagnosis, but these were mainly accessible only to students who staid or lived in town; and in the "green room" the last question asked was whether you had ever actually percussed a chest, tied an artery, or attended a woman in child-birth.

There were but the seven orthodox branches to be examined upon and, therefore, only these seven were studied. The mystical seven were persuaded of the witty definition that orthodoxy was their "doxy," and heterodoxy the other fellows' "doxies."

Gynæcology, save as a very small bob to the obstetrical kite, was unknown. I well remember the first time I ever saw the term in the Vienna medical Catalogue in 1865, when, but for its Grecian flavor, I should not have known what dish it was the Herr Professor proposed to serve.

As a private medical office student, I had some instruction in the use of the microscope in examining the urine, which

was a deal more than ninety per cent. of the students had, but I graduated without ever having seen a muscular-fibre cell, a capillary, an intestinal villus, or a single section of any diseased tissue. The only reagents then used were acetic acid to clear up a specimen, and carmine to stain it. The razor and the hand were practically the only section cutter.

Systematic Histology, as we now understand it, and Pathological Anatomy were but "dark continents" to the students. I think the first systematic lectures, even on the proper method of making a post-mortem examination, were given by myself in 1867. We had, however, progressed far enough beyond the professional colleague of Dr. Gross, who always spoke of a "post mortem examination after death."

Of course, there was no collegiate teaching in urinalysis, or in the use of electricity; and we had only clinics on medicine and surgery on Wednesdays and Saturdays.

The now flourishing specialties in medicine were just arising. Early in the war, when special eye-wards were set apart in this city and elsewhere in the military hospitals, the surgeon in charge of that department in the Satterlee Hospital in West Philadelphia was the only man in this city, and he a new-comer, who could scientifically order a proper pair of glasses for any one of the million pairs of eyes in this vicinity all awaiting the coming man.

There were no specialists in diseases of the ear, the nose, the throat, the skin, orthopædics, gynæcology or nervous diseases, in the sense in which we now understand these terms.

If, in spite of all this, you tell me that the colleges turned out pretty fair doctors, and point to my colleagues of the faculty as instances, I admit it; but I assure you it has been only because of our later hard work to keep up with the progress of medicine. And, with the admission, I ask the serious question: "What sort of doctors ought *you* to be with all your legion of advantages?"

There were no entrance examinations. Comparatively few of the students knew the ancient languages; fewer still, I think, the modern. Good

English was none too frequent an accomplishment; and I fear, even to-day, Lindley Murray is sometimes rather restless, especially during medical March weather above ground. We have this year begun our own entrance examinations, an innovation which I know you will all greet as a great step in advance. In one sense it is not much of an examination; but you remember that the Rubicon, too, was not much of a stream in one sense. But the stepping across that narrow stream meant war. So, too, the moral significance of *any* entrance examination is great. It means that this college shall be on the side of a large and liberal culture; that while native force and fitness must always tell in the medical as in all other struggles, yet that training and culture will raise such force and fitness to the square or the cube. Medicine, to retain its rank as a "learned profession," must not fall behind the church or the bar.

The problems we have to solve are increasing in number and complexity, and subdivision is a necessity. New branches are constantly arising. Time was when one man could occupy a chair or,—as Holmes wittily calls it,—a "settee" of professorships devoted to several combined subjects. But that day has long gone by, and even in your day Hygiene, and State Medicine, and Medical Jurisprudence, and Mental Diseases, and Bacteriology are all clamoring for recognition in the college courses, and sooner or later must be admitted.

Now, to be equal to the daily tasks imposed even upon the humblest doctor in a country village, if that doctor honestly and earnestly desires to acquire herself creditably and to treat her patients properly, it is imperative that the education shall be not only technically thorough, but that her mind shall be well developed and well furnished by a substantial, preliminary training. It is rapidly passing from the stage of a useful accomplishment to that of a necessary adjunct, from the sphere of the "may be" and the "ought to be" to that of the "must be." The luxuries of one generation become the necessities of the next. The liberal education which has been the luxury of

the nineteenth century will be the necessity of the twentieth,—and remember that you will live chiefly in the latter. To achieve all this education—preliminary liberal education and later professional or technical education—you will all need good health and plenty of time.

I hail with the greatest pleasure the growing tendency in this school to a full four years' course. A larger percentage of our students, I think, avail themselves of this privilege than in any other medical school I know of. For one, I shall never be satisfied until the four years' course is made obligatory. Even then we shall be full of work, but we shall at least have time to breathe.

I know of no class of people who are more reckless of health than medical students. Partly this arises from the necessities of the case, and partly from ignorance. They are taught how to take care of disease, but not how to take care of health. They rise early to consult a text-book; they lead a sedentary, or at least a non-active life all day in the lecture rooms and laboratories; they spend the evenings and the day's leisure in the mal-odorous though fascinating dissecting-rooms; they snatch hasty meals, and before these are digested whip up the brain and let the poor stomach look out for itself; they go to bed late, with the head full of to-day's lectures and operations and to-morrow's quiz; and, as if this were not enough, when examinations come, one-half of them take strong coffee to keep them awake, and the other half bromide of potassium to put them to sleep; and still they hope, if they do not actually expect, to escape physical bankruptcy!

With a view then both to added instruction and added health, I most heartily endorse the present active agitation of the project for a Professorship of Hygiene and a Gymnasium. While we have many other wants, these are the most pressing. The systematic and thorough teaching of hygiene will open a new door to you, will show you how to take care of yourselves and to guide others in the same wise path. It is a part of the praiseworthy movement for "Preventive Medicine" which is a fine characteristic of the last twenty-five years.

I feel proud of my profession as the only unselfish, "self-destructive" profession or pursuit I know. We live by disease, and yet with a genuine altruism which can never be overpraised, we are in the fore-front of those who would destroy our means of support by pointing out the path to the conservation of health.

The relation of physical exercise, both to bodily health and to mental activity, is only faintly understood by those who have given but ordinary attention to the subject. When our gymnasium is built and you all can not only enjoy its athletic exercises as a recreation, but also learn how to use them as a means of preserving health and preventing disease; when you have learned, as Blaikie happily puts it, "How to get strong and how to *stay* so," then you will be able to go forth as apostles of a new hygienic creed and to spread abroad the gospel of health to the sinners both by ignorance and by wilfulness.

I hail this movement too as a wholesome sign of the newly aroused and vigorous interest of our undergraduates and alumnae. Hitherto they have shown too little interest in the progress of the College. They have now undertaken no light task in the endeavor to raise \$40,000. But no less sum would at all suffice for our wants, and every one who has had a hand in the good work will find her interest in the College and college affairs strengthened for all future life. We must all work, and work hard, to make this project a success; and, with the well-assured support of our best friends, the generous and self-sacrificing Board of Corporators, the hearty good will of the Faculty, and the open purses of the alumnae and students and friends of the college, it must and will succeed.

You will tell me you have "no time" for exercise. In reply, I tell you that with good healthy bodies, rosy cheeks, and redundant animal spirits your ready brains will do more real good hard work in three hours than pallid lips and paler brains will do in four. "In Nature," says Emerson, "nothing is ever given away, everything is sold." Some things may be bought with gold; good health cannot be. In Nature's mart its price is time and hard work.

It is often a reproach to our profession that we do not take our own medicines; that we preach, but do not practice. The time has come to disprove the assertion and to make the lusty, laughter-loving, hale and hearty old doctor the best text for a sermon on health. I trust that the distant graduates will then have the generosity to forgive the vigorous gray-haired doctors we shall have graduated, who will persist in living so long that the young ones will have a first-rate opportunity to starve before they get a good chance to secure a paying practice.

ORIGINAL COMMUNICATIONS.

ON THE PATHOGENESIS OF YELLOW FEVER.

BY YGNACIO ALVARADO, M. D.,

Delegate from Mexico; Professor of Physiology in the National School of Medicine (Mexico).

[Read before the Section on Practice of Medicine in the Ninth International Medical Congress, held at Washington, September, 1887; and published in the PHILADELPHIA MEDICAL TIMES by special permission of the author.]

AS science now stands, every fact points to the belief that to a certain microbe must be undoubtedly ascribed the primary cause of the series of anatomical injuries which originate those particular functional disturbances which are known clinically by the name of "yellow fever." Such a fact by itself, however, is not sufficient to afford an amount of knowledge available for the checking of the diverse ailments present; it would be a valuable means for research into the prophylaxis of the malady, but is by no means the leading step in controlling the attending symptoms,—the former means the prevention, the latter the cure of the illness. No better means can be devised for attaining the latter than the knowledge of the real condition of the solids and liquids of the organism when under the action of the microbe.

The object of the present paper is to call the attention of the profession to certain facts relating to yellow fever as it prevails at Vera Cruz (Mexico) which have led us up to the theory that yellow fever is an *auto-blood-poisoning*, either by the acid phosphate of soda of

the same blood having been turned from a basic into the acid form, or by the phosphoglyceric acid set free from the lecythine, by reactions in both cases that have been produced by the feeding of the microbes upon the constituents of the sanguineous fluid. The phosphoric compound, be it what it may, has not been introduced from without into the blood; it pre-existed in the liquid under a harmless form, contributing to the physiological and perfect composition of the blood, but has been rendered toxic by the microbe, which acts then as a true ferment; and, while it appropriates some of the blood elements for its own sustenance, causes some of the others to be noxious to human life.

The view that yellow fever is an instance of poisoning by phosphorus is certainly not a new one; it has been set forth by other observers who could not disregard the similarity between the symptoms of the two ailments, and, by the way, they meant phosphoretted hydrogen. But although this similarity is a striking one, this teaching has had no followers, as there are good reasons against it. For instance, how is it that yellow fever is an epidemic and infectious disease if it is only phosphorus poisoning? Why can a ship be contaminated to such an extent as to infect people traveling on it many months afterward? Is there any analogous case on record of phosphorus poisoning? Why is it that natives of Havana, Vera Cruz, etc., as well as those who have had the illness, are exempt from contracting it again? Does phosphorus poisoning ever confer such an immunity? These objections are indeed unanswerable arguments, and on this account the theory of the phosphorus poisoning has been set aside as untenable.

Although the qualitative analysis of the blood is the only *direct* way for solving such a question, we did not intend to undertake it during our studies of the yellow fever at Vera Cruz some ten years ago, because it is necessary for one who makes such analysis to be fully conversant with practical chemistry; otherwise the conclusions reached would be unreliable. But there is, nevertheless, another

indirect way for very reasonably presuming the reality of the phosphoric poisoning of the blood, and this is to appreciate *all* the facts that a post-mortem examination, the symptoms present during the life, and the course followed by yellow fever can afford to an unprejudiced mind, and then to compare them respectively with those attending phosphorus poisoning. If there is a favorable result from the said comparison, this must be considered as circumstantial evidence of the correctness of our hypothesis.

It is not out of place to remember here that the right way, and the only way recognized by science, for finding out the correct explanation of any phenomenon whatever is to build up at once upon the observed facts a rational hypothesis, and to look upon its consistency or inconsistency by instituting as many clear and *direct* experiments as may be necessary to convince one, either that the said hypothesis must be set aside as void or accepted as an acquired truth. In case such a way cannot be followed, the indirect experimentation, as it has been termed by Claude Bernard, must be resorted to; that is, the repeated observation of the phenomenon in its different phases and under diverse circumstances, and this must be so far conducted as to demonstrate either the accord or the discrepancy between the hypothesis and the phenomenon itself. Direct experimentation leads to *certainly*, the indirect to a probability more or less near to certainty.

Let it be taken for granted that the microbe of yellow fever feeds, as any ferment does, on the oxygen of the sugar of the blood, transforming the remaining elements of the sugar into lactic acid; that this acid acts upon the basic phosphate of soda, turning it from basic into acid; or upon the lecythine, setting free its phosphoglyceric acid, and we shall have then that in yellow fever there will be but two distinct and natural periods, viz: (a) one of fermentation, during which the lactic acid is formed, and (b) a second stage, an accidental sequence of the first one, in which the phosphoric compound appears; each stage being evinced by the proper symptoms attending respectively the

fermentation and production of the lactic acid, and the poisoning by phosphoric acid; and finally we shall have, too, that the anatomical lesions will be those met with in cases of phosphoric acid poisoning.

Now let us see what the anatomical lesions are in cases of accidental poisoning by this acid, and let us compare them with those in cases of yellow fever.

We cannot do better than to quote on this subject the following, in Dr. Jacoud's words:

"Phosphorus as a steatogene poison is by far more active than arsenic and antimony. After its absorption in toxic doses, it determines the fatty degeneration of the liver, kidneys, heart, diaphragm, muscles, lungs,—the acute stasis of these organs being revealed by the ordinary symptoms—and thus jaundice, diffuse hemorrhages, delirium and coma, which evince the last stage of the poisoning, must be considered rather as consequences of the direct action upon the blood or the brain than as effects of the fatty atrophy of the liver. In a greater or less degree the same lesions have been found in animals in experimental poisoning by lactic acid.

As to the morbid anatomy of yellow fever, the following are the lesions met with by us and by every physician who has had to make examinations of the kind.

The gums have been found congested, red and swollen; the tongue swollen, red and ulcerated; the pharynx red and swollen; the mucous membrane of the stomach has a more or less red discoloration, its hyperæmia being noticeable by enlarged blood-vessels, sometimes as red patches, and at others exhibiting an arborescent appearance; its thickness has always been found increased, and softening is not an unusual occurrence, its epithelial layer being then easily scraped off. It is not uncommon to meet with superficial ulcers or abrasions. On microscopical examination, fatty degeneration of the walls of the stomach has been unmistakably found, the degeneration extending as deeply as the small arteries; hence the ulcers and hemorrhages. The volume of the liver is augmented, but its density is diminished. Its color varies from the light yellow mustard or straw to the red

orange, the yellow hue always predominating. Its consistency and cohesion are notably increased, and blood flows out in a very small quantity after an incision with the knife. The hepatic cells never fail to show fatty degeneration in the divers steps of its process, and the mucous membrane of the gall-bladder exhibits lesions very analogous to those of the stomach.

(To be continued.)

UTERINE FIBROIDS.

BY T. H. SQUIRE, M.D.,
of Elmira, N. Y.

[Read before the Third District Branch, N. Y. S. M. A.]

A UTERINE fibroid, a fetus in utero, and an ovarian cyst may, under certain circumstances, simulate each other very closely in situation, size, form and density. Pregnancy, which ought to be the glory and joy of any virtuous female, being a physiological condition, need not be regarded by us when studying diseases. Uterine fibroids and ovarian tumors resemble each other in wider and more varied particulars. As to frequency of occurrence, I do not know that any very definite statistics have yet been obtained. A first impression, based upon imperfect individual observations, might lead us to say that uterine fibroids are much more frequent than ovarian tumors. But there are some sources of deception in such a conclusion. An ovarian tumor, when it occurs, seldom remains under observation more than four or five years, if left to the old mode of treatment—letting alone—and seldom more than one or two years if subjected to operation according to the present plan. Fibroids, however, last a much longer time under observation, and so the cases accumulate before our eyes. But, notwithstanding this, the fibroids actually occur in larger proportion than ovarian cysts.

These two types of tumors differ very widely in other particulars.

The fibroid, as the name implies, is a solid growth.

The cyst, as equally characterized by its name, is generally a thin sac or collection of sacs filled with water or a thicker fluid.

The ovarian tumor generally grows by a small and narrow neck or pedicle, and thence swells and expands like a balloon. The fibroid generally grows laterally on a broader base, and consequently it keeps more rigidly one definite locality, whereas the ovarian tumor is, to a limited extent, migratory, especially when it is young.

The ovarian tumors, if left to themselves, generally come to no limits in their size. They fill and greatly distend the abdomen, crowd the diaphragm upwards, and usurp the territory of the lungs and heart, compress every organ within their reach, and only cease their aggression when life yields to their demand.

The fibroids generally grow quite rapidly for a while, and then they seem to be stationary as to size, or they actually diminish in size and become latent or passive agencies in the individual, admitting many years, perhaps a whole life, of almost perfect health, enjoyment and usefulness in society.

The fibroids may sometimes be combatted successfully by medicines, but the ovarian tumors universally mock the *materia medica*.

Not so, however, when the surgeon comes forward with his knife and his ligatures, for then the ovarian tumor knows not how to defend its narrow base of supplies; whereas the securely anchored fibroid generally keeps the surgeon at bay.

The ovarian tumors generally conform very nearly to one line of manifestations; the fibroids cover a wider field of eccentricities. It may be interesting to very briefly hear how some fibroids have conducted themselves.

Dr. Chubbuck, whose name forms an obstetric milestone in Elmira, attended Mrs. J. C. in confinement Aug. 10th, 1879.

She was a slender woman, only twenty-six years of age; it was her first child. Her abdomen was very large. After a somewhat tedious labor a ten-pound child was born. "After the delivery," said Dr. Chubbuck in his report of the case, "I placed my hand upon the abdomen and found still a large mass high up and to the right; also, lower down and in the center, a tumor or

enlargement where I supposed the placenta to be situated. In fifteen minutes slight uterine contractions occurred, and the placenta was felt in the vagina, from whence it was removed. But still the enlargement in the right and upper part of the abdomen remained. It was slightly movable, about the size of a foetal head, regular in form, oval, and hard to the touch."

During the patient's recovery from confinement this tumor took a diagonal course downward and became fixed in a central position above the pubis.

I saw the case several times with Dr. Chubbuck in the next year or two, and we agreed in diagnosis that it was "*an interstitial or sub-peritoneal fibroid, situated in connection with the right lateral wall and summit of the uterus.*" We put a hypodermic needle in the tumor and found it solid. Well, a few years passed by and no particular change occurred. The tumor reached nearly to the umbilicus, and was a little more prominent on the right side of the median line. Dr. Chubbuck had died, and I saw nothing of her again till July, 1886. She had regarded herself as well, and had done full work for four years at least. But the tumor had been slowly increasing in size. For three months prior to her coming to my office last summer she had increased quite rapidly. She measured forty inches in circumference at the umbilicus, and I could detect distinct fluctuation. In September of last year she was larger yet, and I used a small trocar to the left of the median line, nearly opposite the navel, where the region of fluctuation could be best defined; but I was able to obtain only one pint of straw-colored serum. Now I will read my extemporaneous notes of another tapping that occurred December 22d, 1886.

"Since previous note, Mrs. J. C. has been in great suffering from extreme distension. She is extremely emaciated; her pulse small and weak; she cannot eat, or lie down, or sleep. In fact, she seems to be rapidly approaching her end. Two days ago she thought she felt something give way in the abdominal wall. This morning, she being in a sitting posture in bed, I inserted a long hypodermic needle about half-way from the umbilicus to

the pubes, and one inch to the left of the median line. Finding fluid, I next used a small trocar in the same place, and obtained a full stream; but there was a limit to the out-flow, and after quite a little pressure and manipulation I withdrew only three quarts of straw-colored serum. I then removed the canula with a quick motion, and was surprised to find it followed by a full and perfect and continuous stream or jet of blood. This blood was received, as it flowed, in a clean basin. At length the stream began to weaken, and finally it stopped. Fully a pint of blood was thus obtained. It soon coagulated in the vessel. The patient was much relieved by the evacuation. My explanation of this blood is that it came from a hæmatocele in the abdominal wall, the result of a ruptured blood vessel two days ago.*

Since this tapping she has been taking tr. of digitalis, 10 to 15 drops four times a day regularly till the present time, and is still taking the same; under the influence of which she has diminished in size, regained her flesh and ability to work. She is free from pain, eats and sleeps well, has given up the idea of dying, and expects to continue the digitalis. This case illustrates two things in particular: 1st, the tendency of certain fibroids to cause the accumulation of serum in the peritoneal cavity, and 2d, the excellent effect of digitalis in removing this accumulation.*

Some four or five years ago I was requested by a neighboring physician to take instruments and go with him to see a patient with a fibroid polypus that had recently developed within the interior of the uterus. Reaching the house, we found the patient, about 39 years of age, anæmic from previous loss of blood, and an ovoid tumor the size of a small fetal head, say three and a half or four inches in diameter, occupying the vagina. To examine its attachment better we dragged the tumor still lower and found that the pedicle or elongated neck divided into two

halves, one attached on either side of the uterine cavity—in other words, it had two pedicles. I first put the chain of the écraseur around one pedicle and ground it off; then I did the same with the other. The conclusion that we came to afterward, in a more careful examination of the tumor's structure, was that there had been originally two symmetrical intra-uterine fibroids, and that, by long pressure, they had grown together in their bodies, and this explained the bifurcated neck and double attachment. The patient made a good recovery and is still living in good health.

The ovarian cysts, in number, are limited to the number of the ovaries—two—but the uterine fibroids are not limited in number; the same individual having, at the same time or in succession, two, three, six, or a dozen. The question of treatment is a very important one in respect to fibroids. Some had better be treated medicinally, some surgically, and some may be left entirely to nature.

The intra-uterine fibroids generally demand surgical interference on account of the repeated hemorrhages which they induce.

The extra-uterine, if they persist in growing, and in fretting the peritoneum, and in causing abdominal dropsy, etc., may call for great skill in the use of remedial agents, or may justify laparotomy and surgical removal.

The interstitial or intra-mural variety occupy a middle ground, and each case of this variety must be treated according to its own peculiarity.

I was called on February last to see Mrs. F., aged 52, a short, fleshy woman, whose weight had been as high as 170 pounds; had given birth to four children, the last one when she was 44 years of age. Since that time she had lost much blood at regular and irregular intervals, and at the time of my visit she was as white as a ghost and very anæmic. She had œdema of the feet, palpitation, shortness of breath, and was obliged to keep to her bed, but usually in a semi-sitting posture. A tumor had been growing for several years. I found the os uteri dilated to the size of a silver dollar, and a firm, large, hard tumor

* Mrs. J. C. is now (Oct. 15th, 1887) enjoying good health; but the fibroid is larger, quite distending all the right side of the abdomen, and there is also some fluid in the cavity. She continues the digitalis, in smaller doses.—T. H. S.

presenting there. At a subsequent visit some weeks later, after efforts had been made to increase the dilatation, I found room to admit various instruments to measure the size, form, and extent of attachment, etc., and then I discovered that it was intramural, about the size of a child's head—it reached to the umbilicus externally—and that its field of attachment was nearly the whole of summit and left lateral half of the uterus. It had too broad an attachment for the chain of an *écraseur* to be applied. I tried to drag the mass down with a strong volsellum, but the tissues seized gave way. I tried to obtain a hold upon the tumor with a small pair of obstetric forceps. I succeeded in placing both of the blades within the uterus, but they could not be properly adjusted and locked, on account of the broad base. I must have used considerable violence upon the growth with the thin edges of the blades of the forceps. I then extemporized a large blunt hook, (a mammoth needle with large eye in its beak), intending to put a deep stitch with strong cord through the middle of the tumor, and thus have a bridle or halter by which traction could be used from time to time: thus endeavoring to aid nature in bringing it into the vagina. I put my blunt hook, threaded, through the mass, but I could not seize and secure my loop. Taking it altogether, the tumor received pretty severe handling that day, inside and out, with instruments that did not cut, but bruised and punched and lacerated and tore. The patient was quite fatigued, but the loss of blood was but little. As the result of this violence, suppuration, sloughing and disintegration commenced, which finally caused the whole tumor to melt away and disappear; and the patient is now much improved in her health, with fair prospect of complete cure. A valuable lesson is to be drawn from this result.

Only two weeks ago I was invited by the Secretary of this branch association to see a married woman aged 53 years, the mother of two children. She began to be aware of increasing fullness of the abdomen twenty years ago. First noticed a protuberance in the right side of abdomen in 1879.

In the next two years she was examined by Professors White of Buffalo, Thomas of New York, and Hewson of Philadelphia, the prevailing opinion being that it was a fibroid. Her periods ceased at the age of fifty-two years, having been somewhat irregular and at times profuse prior to that time. Lately—that is for some years past—she has been growing fleshy. Last March she began to have chest and stomach symptoms, and since then she has been quite sick all the time, vomiting, cough, dyspnoea, some bloody expectoration, increase in size of the abdomen, oedema of the feet, pains in different parts of the body, at times scanty urine. At my examination she measured 45 inches at the umbilicus, and a distinct tumor could be felt filling the whole right and lower part of the abdomen, and there was evidence of a thick abdominal wall, from adipose tissue, and besides a considerable quantity of ascitic fluid in the peritoneal cavity. This was afterwards proven by the use of the aspiration needle. The urine was found to be loaded with albumen, and the heart's action was feeble and irregular. We put her upon 10-drop doses of tincture of digitalis four times a day, and the same treatment is being continued, with improvement of the symptoms. This case we regard as one of large uterine fibroids pressing for a long time upon one or both kidneys, causing albuminuria and all its attendant symptoms.

Now I must make this paper short.

In summing up the subject I may say, fibroid tumors of the uterus are frequently met with in married and unmarried females between the ages of puberty and the menopause, but not as frequently as would seem to be the case, owing to the length of time that these tumors usually remain under observation.

2. These tumors often develop quite rapidly for a while, then become stationary without much detriment to the individual, and they sometimes spontaneously recede or entirely disappear.

3. They seem to be somewhat under the control of remedies, especially of ergot and digitalis.

4. When they grow within the cavity of the uterus they cause continuous

and wasting hæmorrhages, and their removal is urgently demanded. This can generally be done easily with the écraseur or otherwise.

5. Where they are interstitial, or submucous, and are large and cause extreme pallor, and even threaten life by repeated or continuous hæmorrhage, surgical interference becomes sometimes a very serious undertaking. Measures calculated to ensure gradual disintegration and removal by a gradual and natural process are sometimes wiser than more radical effects involving the speedy removal of tumor, uterus, and all, as may now and then be safely accomplished, and may now and then result in speedy death.

6. In the case, like the one last reported, where the growth takes place towards the cavity of the abdomen, rather than towards the cavity of the uterus; where the tumor becomes large and seriously impairs the health by pressure on the kidneys or otherwise, the question of laparotomy and removal of the whole or a part of the uterus may be contemplated; and in this direction modern surgery has recently achieved some very great successes, and doubtless also met with some very sad failures. Fortunately, the cases requiring such heroic measures do not occur very frequently.

My thanks for your attention in listening to this very imperfect presentation of a very interesting subject.

A CASE OF ACUTE PURULENT PERITONITIS TREATED BY LAPAROTOMY AND IRRIGATION.

BY BENJAMIN T. SHIMWELL, M.D.,

Chief of Surgical Clinic and Lecturer on Minor Surgery in the Medico-Chirurgical College of Philadelphia.

I WAS called on the 12th of last September, by Dr. J. B. Turner, in a case of peritonitis, for consultation with regard to the advisability of laparotomy.

The patient was a man, æt. 36; a freight conductor. He had, nine days before, been taken suddenly, while in bed, with a sharp, intense pain in the abdomen. This continued and became diffuse; it was followed by all the symptoms of an acute attack of peritonitis.

When I saw him he was still suffering considerable pain; the abdomen was tense and much enlarged; there was marked tympanites; the liver-dulness was entirely lost. There was fever, but the exact temperature was not taken at the time. The face wore an anxious look; there was difficulty in breathing, burning pains in the extremities, and in fact every indication of imminent fatal ending.

There was a history of typhoid fever, which had occurred nine months previously, and had run a typical course. As soon as convalescence had well started, he had gone back to his work.

The opinion of the doctor in attendance was that it was a case of intestinal perforation. This was based on the previous typhoid fever, the suddenness of the attack, the gravity of the symptoms, and the amount of tympany.

After explaining to the family the certainty of death in the present condition and the possibility of being able to do something for him by abdominal section, they consented to the operation.

At 8.30, on the same evening, the patient was etherized; when he was put on the operating table he showed considerable depression; the skin was cold, pale, and bathed in a profuse perspiration. The heart was rather feeble and irregular. It was known that the patient had a mitral murmur.

After everything had been prepared antiseptically, I made the incision from below the umbilicus to just above the pubes. After reaching the transverse fascia, I found considerable difficulty in separating it from the parietal peritoneum. Upon opening the peritoneum a considerable quantity of gas escaped; and along with it a pale-greenish, purulent fluid. Inside the abdomen, wherever the hand moved it was met by adhesions. The bladder could not be reached, the adhesions forming apparently a roof to the pelvic inlet. Finding that nothing could be done with so small an incision, I extended it above the umbilicus, making an incision about eight inches in length. The same condition prevailed everywhere; the only places where any separation of the intestines was possible was between the transverse

colon and the small intestine, and between the jejunum and ileum. The stomach could not be found as a separate organ; the liver was also covered by the adhesions. In fact, the whole peritoneal surfaces were glued to each other, so as to make it impossible to separate them. After extending the incision, there was an increase in the discharge of the purulent fluid; in all between two and three quarts must have escaped. Finding that it was impossible to locate the cause, I washed out the abdominal cavity with carbolyzed solutions until the fluid passed out perfectly clear. A drainage-tube was then introduced, the abdomen closed, and the patient put in bed. Hot bottles were placed around him, hypodermic injections of whiskey and digitalis were administered, and he began to rally immediately. He was perfectly conscious in an hour; mind was clear and calm; there was no excitement; temperature was normal; pulse full and regular; and he did not complain of pain.

At one o'clock next morning he was still comfortable; no pain; temperature and pulse the same. I saw him again at 5 A. M. He was still the same, but more restless. I left him with no anxiety. After I left, the restlessness increased, and he expired suddenly at 9 A. M., with heart-failure, about thirteen hours after the operation.

I think the operation was justifiable, though the condition of the abdominal cavity was such, if it had been known, as to deter one from operating on account of the slight chances of recovery; but yet the favorable change in the patient's condition after the operation showed the amount of good derived from evacuating the cavity of such fluid as it contained. The advantage of cleansing the cavity of septic matter is that it not only lessens the disposition to septic poisoning, but also the amount of inflammatory action by removal of the irritant. Tension was reduced not only by the evacuation of the fluid, but also of gas that had formed in the abdomen. There was no shock or depression, but on the contrary an amount of relief that the patient both expressed and showed in the face. If this much could be

gained from so bad a case, how much more favorable would it have been in a case of less severity? The operation did not lessen the patient's chances one iota, because his evident improvement afterwards proved that it was of decided benefit to him.

Death was due to the condition of system from the severity of the illness, and directly to a heart with organic lesion, and weakened by a long strain, which suddenly failed in its action. If this patient had been operated on earlier, there is no doubt that a more favorable conclusion might have been reached; but the newness of the operation no doubt made the attendant hesitate to assume the responsibility of advising operative interference, until late in the course of the disease.

1253 South Seventeenth St., Phila.

A SHORT ACCOUNT OF A PECULIAR DISLOCATION OF SOME BONES OF THE FOOT, WITH FRACTURE.

BY OSCAR J. COSKERY, M. D.,

Professor of Surgery in the College of Physicians and Surgeons, Baltimore, Maryland.

WILSON R., aged 35, was struck by a slowly-moving train, and received the following injuries, for which he was admitted into the City Hospital, Baltimore, a few hours after the accident occurred.

The right leg had been crushed just below the knee, and was nearly off, being only attached by the skin of the popliteal space. The left foot presented the peculiar deformity shown in the cuts.

Owing to great shock, no operation could be done until May 22d, when amputation of the right leg and resection of the left foot were performed; but were followed by death on the 23d, the patient never rallying. The point of interest in the case, outside of the unfortunate termination, was the diagnosis as to the exact injury of the left foot. This will now be described.

On the outer side, and just below the tibio-tarsal joint, there was a very small wound of the skin, through which blood was oozing rather freely. The skin was found to be separated for some distance in every direction from

this opening from the deeper structures, and grating, on motion, showed fracture of the bones of the tarsus. Under chloroform, an attempt was made to reduce the deformity. This

cleanly dislocated from the middle and external cuneiform bones.

After death all three cuneiform bones, the scaphoid, and the astragalus were found comminuted.

My theory as to the production of this injury is as follows:

The patient had been seen by the engineer of the train too late to prevent the accident, but in time to allow slowing up of the moving train. After crushing the right leg as described, the broad portion of the slowly-moving wheel caught the left foot, the outer side of which was upon

the ground, or rail, and, without any further wound than what might have been produced by any small pebble, the anterior half of the foot was simply pushed upwards and outwards from its normal position.

624 NORTH CALVERT ST., BALT., MD.

TRANSLATION.

TREATMENT OF DIPHTHERIA.—Simon recommends (*Progrès Médical*, June, 1887) local and general treatment. For the throat he uses the following:

R Acid. salicylici. 0.50 Grm.
Decoct. eucalypti. 60.
Glycerini. 30.
Alcoholis. 12. M.

Apply each hour with a brush, detaching the false membranes, if possible. If the child is old enough, gargles of boric acid (four per cent.), lime-water, or potassium chlorate are ordered. A piece of flannel or wadding is applied to the throat, containing an ointment of iodide of potassium and extract of belladonna. Internally, Simon gives tincture of the chloride of iron, from three to six drops every three hours to infants. If the child is over six years of age, the oleo-resin of cubebs in an aromatic solution is given, with nourishing diet. The room should be kept at an even temperature, and the air kept moist by atomizing a solution of thymol. If croup occur, ipecacuanha is given; and when suffocation threatens, tracheotomy should be performed early.



FIG. 1.—Side View.

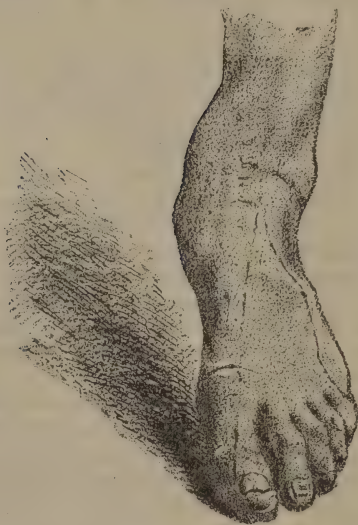


FIG. 2.—Front View.

attempt was not successful, and an incision was carried over the dorsum of the foot at the point of greatest convexity. Up to this time it was supposed to be a case of dislocation upwards and outwards of the three inner metatarsal bones. When the bones were reached, however, the following conditions were found:

There was a comminuted fracture of the internal cuneiform bone; the anterior half had remained in contact with the first metatarsal, and a portion of the cuneiform required resection before reduction could be accomplished. The second and third metatarsal bones were

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EDITORIAL.**THE PREVALENCE OF PNEUMONIA IN BRITISH AMERICA.**

PROFESSOR GEIKIE, the learned Dean of Trinity Medical College, Toronto, gave an instructive paper to the late Congress upon the prevalence of pneumonia in British America. By personal observation, and by correspondence with trustworthy practitioners in every section of the country, he was enabled to map out the regions in which pneumonia exists, either in its simple form or in combination with malaria or typhoid fever.

Those who attribute this affection solely to the effects of exposure to cold and dampness will find it difficult to account for the fact that pneumonia is not especially prevalent in the higher latitudes, where these conditions exist to an unusual degree. In fact, this disease prevails to a greater extent among those who are comfortably housed in Toronto or Montreal than among the inhabitants of the inclement wilds of the Hudson's Bay territories. Lumbermen, who are often drenched to the skin in cold weather without an opportunity to change to dry clothing for days, hunters and trappers, who are exposed to all the vicissitudes of their wild life, do not suffer from pneumonia in as large a proportion as the city laboring population.

But to those who maintain the theory that pneumonia is caused by a specific micro-organism or disease germ, Dr. Geikie's statistics are still more disastrous.

In the vast solitudes of the extreme

north of this continent a population can scarcely be said to exist. A few hundred wandering savages, red and white, with here and there an isolated settlement which has grown up around a trading station, are scattered over a territory which, in a more genial clime, would sustain millions of human beings. During the larger part of the year communication between these remote hamlets is impossible; and even in the summer months social intercourse is extremely limited.

Under such circumstances contagion is almost impossible; and, when it does occur, the origin and the progress of the disease can be traced with the utmost precision. If but a single visitor happen along in the course of a summer, and his advent be followed by an outbreak of small-pox, there can be no such uncertainty as to the source of the pestilence as may exist in thickly-settled districts, where the possible sources of contagion are so multiplied and varied. How, then, can we account for the presence of pneumonia in these isolated hamlets if the disease be due to a contagium vivum? Obviously, we have to choose between four solutions of the difficulty. Either the disease is due to a germ so universally diffused that it exists even in uninhabited solitudes; (2) that this germ may be spontaneously generated under appropriate circumstances; or (3) it is not due to a specific infectious germ at all; or (4) finally, there is a group of diseases which are called pneumonia; of which one may be caused by a specific germ, and another by only a simple inflammation due to refrigeration or to various kinds of non-specific irritants.

Dr. Geikie's paper contributes a variety of information in which medical literature is sadly deficient. Similar reports from all parts of the

country could be made with advantage; and would possess a value much greater than the useless repetitions of reports of single cases and of matter that has already appeared in our textbooks, which needlessly swell the volume of periodical medical literature.

W. F. W.

THE TREATMENT OF KELOID BY ELECTROLYSIS.

IN the PHILADELPHIA MEDICAL TIMES for May 26th, 1886, Dr. W. A. Hardaway, of St. Louis, published a short account of the successful use of electrolysis in keloidal growths. In recent numbers of *La Thérapeutique Contemporaine* (Sept. 9th, 16th and 23d), Dr. L. Brocq, one of the most progressive of the younger French dermatologists, reports three cases of keloid treated in the same way, with like satisfactory results. He employed a bichloride of mercury battery of 23 elements (*Pile Chardin*). The positive electrode is a metallic cylinder covered with chamois skin which is moistened with a salt solution. This the patient holds in one hand. The negative electrode is a fine irido-platinum needle. A fine steel needle would answer equally well. A shoulder of wax is attached to the needle at a distance from the point corresponding to the supposed thickness of the growth. An experienced operator would not require this, however, as the proper depth to which the needle should penetrate is easily estimated. In order to reduce the pain of the puncture, Brocq gives the needle a rotatory movement, when it penetrates readily. After inserting the needle in the tissues, the current is slowly turned on until the galvanometer marks about five milliamperes. After allowing the current to pass for a sufficient time, it is cut off before the

needle is withdrawn. In fifteen to thirty seconds a whitish zone of from one-fourth to one-third of an inch in diameter is produced with a current of the above strength. A second puncture is made about half an inch from the first, and so on until the surface of the keloid is covered with punctures at the intervals mentioned. It is not necessary to make the punctures closer together. Stronger currents were used in one case (10–15 milliamperes), but produced severe pain and intense destruction of tissue, resulting in small interstitial hemorrhages. The lesions produced by the punctures heal up in from one to two weeks.

The pain may be mitigated by injections of cocaine; but in one case in which this was tried, the patient preferred to bear the pain, on account of the disagreeable general effects of the cocaine.

The pain produced is always bearable. It rarely continues longer than a half-hour or an hour after the operation; sometimes it ceases immediately.

The operations may be repeated at intervals of eight days.

The curative action of the electrolysis is not limited to the points touched by the needle, but seems to extend some distance around the needle. This had already been pointed out by Hardaway.

Electrolysis may also be combined with linear scarifications and the application of *Emplastrum de Vigo*, as practiced by Vidal, in cases in which electrolysis seems inadequate alone to produce a cure.

It is pleasant to note that Dr. Brocq gives full credit to his American confrère for having introduced this addition to our therapeutic resources in a disease looked upon as incurable by so many surgeons.

G. H. R.

AN ATTEMPTED CHOLERA SCARE.

THE chief stock in trade of some journals is sensationalism. The readers of papers published under such management are kept in a constant state of anxiety and alarm, by hasty and prejudiced statements based upon the barest possible substratum of fact. The general estimation of periodicals conducted after this style is that they do not keep up with the higher plane of journalism, but descend to arts that cannot fail to make the judicious grieve, in order to attract the attention of the vulgar.

Medical journals belong to a form of technical and scientific publication that is relieved to a large extent from temptation to indulge in sensationalism. When an opinion is given editorially, it is supposed to present a sort of judicial expression upon the question under discussion, quite free from prejudice, bias, or special pleading. It is held to be understood that the only ends that should be subserved are those that the fallen Cardinal advised Cromwell to aim at; nothing else will have permanent value, or retain the good opinion of those whose esteem is worth possessing.

These observations seem called for by the arts adopted by some medical journals in order to attract the attention of the secular press, and to increase the stock in trade of those "teachers of disjointed thinking," as Dr. Rush termed them, by furnishing the means to alarm their readers. We deprecate this style of journalism, whether technical or popular; it panders to a morbid desire for excitement which is a prolific source of disease, if indeed it be not itself a symptom of a widespread disease. The *Sturm und Drang* of modern life bears hardest upon the weak. Parents whose nerves

are overtaxed, and who live in a state of constant nervous erethism, cannot have sturdy, healthy offspring. For the sake, then, of the community, and the welfare of those who are to come after us, let us regard it as a part of a physician's duty to quiet the apprehensions of our patients and of the community in which we live. If medical journals pursue a contrary course, they must expect to meet remonstrance; and ought to be rebuked by their readers should they continue their indulgence in sensationalism.

With regard to cholera, there is now little cause for alarm. Thanks to Koch and other able investigators, the etiology of the disease is well understood, and the means of preventing an epidemic are known, and may be easily applied. Philadelphia, at all events, is not in a position to suffer severely from its invasion.

F. W.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

TREATMENT OF PENETRATING AND PERFORATING WOUNDS OF THE INTESTINES WITHOUT OPERATION; THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCES; COCA IN GASTRALGIA; THE RETRO-STERNAL PULSE; TREATMENT OF HÆMORRHAGE BY REVULSION IN THE HEPATIC REGION; THE PREVENTION OF CHOLERA AND TYPHOID FEVER BY PURIFYING THE DRINKING-WATER; THE PHYSIOLOGICAL ACTION OF CYTISUS LABURNUM; VERNEUIL ON THE NON-EXISTENCE OF SPONTANEOUS TETANUS.

TREATMENT of Traumatic Perforations of the Intestines, etc.—

Professor Réclus, in his interesting surgical clinics at the Hôtel Dieu, again calls attention to the important subject of penetrating wounds involving the intestines. It is quite certain that American surgeons have gone very far when, without quoting statistics of any kind to prove it, they say, with Dr. Warren

(in the *New York Medical Journal* of September 17th): "That the prognosis in such cases (gunshot-wounds) is always death when left to the old mode of treatment. This is far from true. On the other hand, if every village doctor is going to perform laparotomy in every such case that arises,—for it has come to this: that the operation is on all sides advised *at once*, and all doctors are urged to begin to try their hands on dogs, so that they will be ready at any instant to do laparotomy if called to attend a case of gunshot-wound of the abdomen,—if this is to be the order of the day, there will be plenty of what M. Réclus calls "surgical assassination" going on. Certainly we are all aware that, under certain antiseptic precautions, the belly may be opened, and no one is afraid to open it when necessary to see what may be going on; but that must not be confounded with an operation that takes *hours* to perform properly; where the whole of the intestines must be taken out of the abdominal cavity, and every inch of them carefully manipulated. When one perforation is found and obliterated, that is nothing; for, as a rule, there are at least four or five, perhaps a dozen of them. The same ball can pierce the intestine twenty times, as has been proved by experiment. Légonest says: "The lesions of the intestines made by firearms are almost always multiple." The average is five wounds per ball. Again, there is nothing so difficult as to recognize and locate perforations of the intestines. As good surgeons as Kinloch and Lloyd have closed the abdomen without having found all the perforations. What then will the mass of physicians do in this long search, which, even when done with the highest skill, nearly always ends with shock and peritonitis? So that, if laparotomy is to be the only treatment in such cases, there will be no use in protesting against the old saying that "Death is sure when the intestines are perforated," for, in twenty-one recent cases, three successes are recorded! How many, we may ask, would have been saved by the old treatment?

It must be remembered, first, that the diagnosis is very difficult to

establish in many cases. It is rare, but it has occurred, that the bullet may pass between the intestines without opening them. However, as the rule, penetrating wounds and intestinal perforations are almost always synonymous terms. It won't do, though, to say as Dr. Warren does, that "having noticed the legs drawn up on the thighs, and these upon the abdomen, I felt certain that there was a perforation." These symptoms are common to many diseases, and certainly are not symptomatic of perforation!

Dr. Réclus brought forward several personal cases, and proved that it is quite possible that intestinal wounds can get well without operative interference. One was that of a young student who was practicing with a revolver, and who managed to shoot himself close to the umbilicus. The ball probably passed through the intestines and lodged in the *psoas* muscle. He was completely cured by the old methods, and carries his ball about with him along the streets of Paris without in the least knowing it. M. Tissier relates a similar case, the patient also being still alive and well. But quite a number of such cases exist in medical annals, related by Travers, Dupuytren, Hayes and others. Janes, of Waterbury, gives thirty-seven cases of penetrating wounds of the intestine with clear symptoms of hæmatemesis; in some the ball was even found in the stools. Still they were all cured. Why, then, should death be so certain as the laparotomists claim? They answer that *faeces* will pass through the openings, and will surely provoke peritonitis. But Barnard, in a late thesis, says that *aliments* and *faeces* were only found six times, and nine times not, in the cases he gives where laparotomy was performed and it was possible to see.

Again, much will depend on the state of the intestines at the time of the wound. Professor Réclus and M. Noguès, his interne, have been engaged for a long time in making a series of experiments on dogs. It is well known that traumatic perforations of the intestines are very grave in such animals; and indeed, as a rule, they die. Indeed it is quite likely that M. Réclus is the first who has been able to make dogs

survive after wounds of the abdomen. In order to obtain this result, he first purges the dog, and then deprives it of food for two days, when the wound is then made. The food is again almost stopped, while large doses of morphine are given. The result is frequent cure. To prevent effusion into the peritoneal sac, one must stop all liquids as well as solids, and immobilize the intestines with opium. It does not take long for such wounds to heal; sometimes only a few hours, or at most a very few days. Adhesions are soon contracted by a well-known process that need not be described. Feeling sure that cure is possible, M. Réclus rejects immediate laparotomy as a dangerous operation, often incompletely made, and nearly always, to say the least of it, useless. In its place he proposes a modified form of the old treatment: First, as quickly as possible after being called to such an injury by knife-wound or pistol-shot, he insists at once on the patient not moving hand or foot. He is made to lie still while his clothes are cut from him, while he still is in the horizontal position. After this disinfect the orifice of the wound, close it with a little iodoformized collodion; then immobilize the patient in a thick coating of cotton wadding, which must be then compressed with a flannel belt tightly pinned on, in the same way as after an ovariectomy. Inject at once two to three centigrammes of morphine, and give as much dry extract of opium by the mouth. During the first five or six days food must be withheld; at most a few teaspoonfuls of iced milk are given, and some small lumps of ice are allowed, to quench thirst. Only last winter we saw two patients of M. Réclus with penetrating wounds of the abdomen, so treated with entire success; and at the present moment he has a man in the wards who attempted to commit suicide by shooting himself in the breast, both on the right and left sides. We saw him ourselves this morning, and it is now the fifth day since the shooting, and he is going on quite well under the old treatment, and without any rise in temperature. When brought in, he was vomiting and spitting blood.

It must not be understood that M. Réclus never does laparotomy in such cases. If, notwithstanding the above treatment, symptoms of peritonitis set in, he operates; but he considers the operation itself a dangerous and uncertain one. But, since it gives a last and forlorn hope, he tries it *after the old treatment has failed*; and not, as many would have it, as an operation to be done at once, for fear that it will not succeed later,—which, it is true, it often does not, no matter at what time it is done. We hope that some of our prominent surgeons advocating laparotomy will answer M. Réclus' arguments, which are to be published shortly, with details of his experiments with M. Nogues on dogs, at considerable length.

The annual meeting of the *Association Française pour l'Avancement des Sciences* has just held its sessions at Toulouse. We give some of the most interesting of the proceedings of the Medical Section.

M. D'Ardenne spoke on the "Action of Extract of Coca in Painful Affections of the Stomach." He had been trying it since 1885, and found that it will bring about a rapid suppression of pain in gastritis and other annoying stomach-complaints, acting indeed, in some cases, where morphine had no effect. He uses the following formula:

R Extract. erythroxyli .10 grammes
Syr. aurantii flor. 50 grammes
Aqua tilia. 100 grammes

M. S.—Give a spoonful of the above every hour until pain ceases.

From seven to nine grammes of the coca extract have been found to be the usual therapeutic dose for most stomach-pains. M. Salet, on the other hand, had been studying the "Physiological Action of Cocaine," first alone, and afterwards with alkalies, then with a small amount of morphine added, also to suppress pain in the painful affections of the stomach and the digestive tube. It results from the last study that cocaine has an action on the digestive mucous membranes similar to that it shows on external membranes. In order to make its action complete, it is well to encourage the action of the gastro-intestinal secretions; so, therefore, alkalies must be added. Lastly,

so that the action shall reach its maximum, it is best to add a small dose of morphine to the rest of the mixture. (We hope no one will rise here and say that the sting is in the tail.)

M. Maurel presented a study of what he calls "The Retro-Sternal Pulse." He had examined in all some 500 persons,—200 being well people, and 300 ill patients. The pulse is felt by depressing strongly the integuments at the lowest part of the neck in front, above the interclavicular notch of the sternum, pressing the index-finger about a centimetre below and behind the superior border of this bone. In healthy subjects the pulse is felt here, as a rule, only in about ten in a hundred; but in ill people the retro-sternal pulse was found in thirty-seven out of a hundred. It was always present in lesions of the heart and in the first period of typhoid fever. This pulse would seem to be due to the action of the left innominate vein, which is raised by the arterial pulse of the great vessels that come off from the arch of the aorta, and above which it lies. Dr. Maurel gives the facts in résumé of his interesting study of this pulse, which has, so far as we know, passed hitherto without notice. 1st. In a certain number of cases, by compressing the integuments above the interclavicular notch of the sternum, and by following the posterior plane of that bone below a quarter of an inch, one can feel the beating of a retro-sternal pulse. 2nd. This is sometimes felt in healthy persons, but not so frequently as in ill people. 3rd. It seems to come from the large arteries that branch off from the arch of the aorta and transmit their beats to the left innominate vein. 4th. In some patients this pulse should be considered as an important symptom. 5th. It is quite frequently found in cases of typhoid fever. 6th. Its cause varies: in the normal state it may be owing to some special anatomical disposition; in the pathological state it may be owing to the approach of the left innominate vein to that part, owing to its dilatation by an interference with the returning circulation, or it may be owing to a passing dilatation under the influence of a dim-

inution of venous tension. Finally, it may be owing to an insufficiency of the tricuspid valve. This symptom should be of service in diagnosis and prognosis of certain diseases. It certainly constitutes a practical means of following the state of venous tension in man.

Dr. L. H. Petit, of Paris, the learned librarian of the Paris Faculty of Medicine, had a paper on "The Treatment of Certain Hemorrhages by Revulsion over the Hepatic Region." Prof. Verneuil had spoken of this matter last winter, and Dr. Petit then showed that it was known to Hippocrates himself that certain cases of epistaxis were dependent upon some liver affection, and revulsion over the hepatic region or cold douches would stop the bleeding. Hankin, in England, also spoke of this method in secondary bleeding, and its cure by a vesicating plaster over the liver. Dr. Petit presented the details of a number of new cases confirming these facts. A late one was that of a patient of Dr. Verneuil, in which a secondary hemorrhage was constantly reproduced in a suppurating centre. After examination, it was discovered that the man's liver was in a morbid state, and the application of a vesicating plaster over it brought about a cure after everything else had failed. The same was true of some cases of rebellious forms of epistaxis. The theory of reflex action between two different regions seems to explain the action. The liver certainly appeared to be the cause of the hemorrhage, and it was only logical to try energetic revulsion over the right hypochondrium to cure the distant hemorrhage, which in fact was at once arrested.

M. Tellier spoke on the interesting subject of "*cooked water*," and the means of preparing it. The most important question of the day—if it is true that typhoid fever, cholera, and many other diseases are conveyed to us by the water we drink,—is certainly how to get pure water free from the micro-organisms. At present two methods are used: one is the employment of antiseptics, and the other is boiling the water. The first is very uncertain, as far as drinking water is concerned; and as to boiling the water,

it also presents several difficulties. First, the boiling point of water they tell us is not high enough to kill all the microbes. Secondly, in boiling it the air is driven off and the water becomes very heavy and indigestible. Thirdly, the calcareous salts are all precipitated and the water is less sapid; the same happens to earthy parts, so that such water is disagreeable to drink. To prevent all this M. Tellier proposes to use "cooked water," which can be prepared in a tight metallic recipient, which can support a pressure of six atmospheres. This is arranged so that it is boiled in salt water or heated by steam up to temperatures varying from 104° to 150° centigrade. The consequence is that it furnishes a water that is cooked without pressure, in which the air remains as it was, and the carbonic acid has not been driven off and the calcareous salts remain, so that the water is palatable as well as healthy. There is an arrangement on the apparatus to filter the water and air used as well.

The Physiological Action of Cytisus Laburnum.—From a study made by M. M. Provost and Binet, it would seem that this drug, called here *cytise*, is a new and excellent emetic. It causes vomiting by a central action very rapidly, better by hypodermic than by the usual administration by the stomach. To the emetic action in larger doses is added a paralyso-motor action that is quite similar to, if it is not identical with, that of curare. A large number of experiments were made upon animals, and 0.05 of the watery extract per sub-cutaneous injection usually caused vomiting in six minutes; per stomach it took 15 to 20 minutes. In both cases there was no intestinal disorder following the vomiting. The bile secretion was not modified as to quantity, nor was there any modification of the arterial pressure.

On the Non-existence of Spontaneous Tetanus.—Professor Verneuil has just communicated to the *Académie des Sciences* his ideas on this subject. He said: That the etiology of tetanus still divided the pathologists; one party, that may be called the *Dualists*, admit that this succeeds a wound frequently,

and that it may arise without any solution of continuity at all, under the influence of different causes, the most important of which is cold or a chill, from which they make two kinds: surgical tetanus, and medical or spontaneous tetanus. The other party, or the *Unicists*, do not admit a double origin; for them the only origin is in a traumatic or pathological solution of continuity; external or internal, it is the same thing for them. The first opinion is the old one, and it is founded on a negation, that is to say, the impossibility of finding always the initial trauma, while the unicists base their ideas on an affirmation: that of the existence of a constant trauma somewhere to account for the tetanus. Most of the observations of spontaneous tetanus are open to doubt. A traumatism almost microscopic in character can easily be followed by real traumatic tetanus: burns, ulcers, frost-bites, or any inflammation, may be the point of departure of a tetanus, but this cause is pathological, not spontaneous. Again, wounds that have been closed by a complete cicatrization for months and even years, may be the starting point; and I believe that a cause can always be discovered in some solution of continuity present or past, so that I am a unicist of the convinced order, and my argument for that belief is as follows: An opinion has been formulated within a few years by some distinguished surgeons, who have not followed it up, that tetanus can be assimilated to the microbial diseases, virulent and infectious. I admit that this theory is not yet established, but it is making great progress, and I for one resolutely adopt it. It disposes of the spontaneous idea at once, for if tetanus is virulent it can have but one real cause, that is a virus coming from without and penetrating into the organism at a certain moment; but not forming there, not spontaneous. The pathogenic problem is now reduced to discover how and when it penetrates, and what are the circumstances that favor it or prevent its entrance. If we hold that it always enters by some traumatism there is only one method, that is by "*effraction*;" but the infection may take place when there is a pathological solution of continuity, inflammatory or

even traumatic, and when it is covered over by a granular membrane that protects it, and one may believe that the virus can penetrate without any violence, so that we can admit a second form or "*tetanus by absorption*." Inasmuch as certain patients have taken it while they were quite sound, by simply sleeping out all night or by falling into a river, we must admit also that they have absorbed the tetanic virus by the respiratory mucous membrane. What I wish to insist upon is, that there is no spontaneous tetanus, as we find a constant and identical poison as a cause for it; so that there is no use searching if the tetanus is medical, surgical, or idiopathic, etc., as it has no practical importance; but we should search with great care where and how the virus penetrates, in order to prevent it and cure it if possible.

THOMAS LINN, M.D.

Paris, Oct., 1887.

NEW YORK.

DURING the past several weeks our city has been fairly freed from the infectious diseases, excepting diphtheria; of which there has averaged about sixty cases a week with a mortality of one in three. Physicians say there is more than the usual amount of malarial symptoms complicating their cases of bronchitis, diarrhoea, headache and minor ailments. This is to be accounted for presumably by the unclean condition of our streets (excepting perhaps some of those lying between Broadway and Lexington avenue, which are lined largely by private dwellings), and also by the upturning of pavements for the laying of steam-heating pipes, gas pipes, electrical, telephonic and telegraphic wires, etc., which during the last few months prevails more than ever before throughout the city, particularly along the principal thoroughfares. That which has impressed foreign and home physicians visiting the International Medical Congress at Washington, and the American Gynecological Society and New York State Medical Association at New York, is the great contrast between the evenness and cleanliness of the streets of the two cities.

During the past summer, Mayor

Hewitt enforced the ordinance requiring all ashes and garbage to be kept on the premises, and not placed on the sidewalk until the scavenger came to cart it away. This rendered the streets less unsightly, but it did not have the effect of bringing the cartman around any more regularly, while in the tenement neighborhoods it confined the foul emanations of decomposing vegetables and flesh in the halls of the living. In the editorial columns of the *New York Medical Journal* was an excellent suggestion, namely, that each family be provided with at least two covered cans; that the scavenger collect the filled ones daily, convey them to the dock or place of deposit, there empty and disinfect them, and return them the following day.

While speaking of the cleanliness of cities, it might be remarked that physicians, and especially those who have a hospital practice, have had the question of antiseptics so thoroughly dinned into their ears for the past few years that they are becoming more and more impressed with the necessity for striking at the root of the evil of ill health, by making it possible for residents of large cities to live cleanly, to constantly inhale pure air, and thus at once to prevent the development of filth diseases; or should they once develop, to make it possible for the poorest as well as the richest classes to successfully combat them. Some physicians with whom the writer has conversed on the subject think it not utopian to look forward to the day when all sewer pipes, gas pipes, heating pipes, wires, etc., will be placed in one underground conduit, thus dispensing with the necessity for tearing up the streets; when the sidewalks and pavements will be smooth and impervious to water and gases, and vehicles will generally be run by electric or other motor, thus dispensing with the noise and filth of horses; and when a stream of pure water shall flow, through the streets, carrying away the sweepings of the pavements. Our city officials give as one excuse for dirty streets the fact that grocers and others allow their wagons when not in use to obstruct them and interfere with the sweeper. But if they would only clean even the middle of the streets once daily, the residents who now find

it useless to sweep their rooms and sidewalks, as the dust all returns with the next wind, would gladly meet them on this half-way ground. In a nutshell, the real difficulty in all probability consists largely in political corruption; in wrongful use of the public moneys.

The College of Physicians and Surgeons formally opened the fall and winter session to-day, at the new building (erected with money presented by Mr. Vanderbilt) on West 59th street. On the same grounds is the building called the Vanderbilt Clinic, and the Sloane Maternity Hospital, gifts of the Vanderbilt family. In the erection of the buildings attention has been given to utility rather than to ornament, yet with all its simplicity the whole establishment is pleasing to the eye.

The University of the City of New York, apparently determined not to be outdone, has the past summer torn out and reconstructed the interior of its main building, and is proceeding to build the new laboratory, called the Loomis Laboratory, for the erection of which one hundred thousand dollars had been donated.

Somewhat less than the usual number of papers were read at the meeting of the New York State Medical Association, held at the Brunswick Hotel, September 27th, 28th, and 29th. The proportion of gray-haired and bald-headed gentlemen present was somewhat notable. Among the interesting communications might be mentioned the President's (Dr. Isaac E. Taylor) address, discussing lupus serpiginosus of the cervix uteri and female genitalia; the discussion on the management of compound dislocation of the ankle joint, opened by Dr. E. M. Moore, and continued in its separate aspects in laudably brief papers by Drs. Uri C. Lynde, Joseph D. Bryant, Charles W. Brown, and Frederick S. Dennis; the address on nosography, by Dr. Gouley; the discussion on typhoid fever, opened by Dr. A. L. Carroll, continued by Drs. E. G. Janeway, H. M. Biggs, D. E. Salmon, D. V. S., Drs. C. A. Leale, E. D. Ferguson, and C. G. Stockton. With a few exceptions, the papers discussing this subject were historically too lengthy. The discussion on placenta prævia was opened

by Dr. G. T. Harrison, and continued by Drs. I. E. Taylor, C. C. Frederick, Darwin Colvin, S. S. W. McLeod, W. T. Lusk, W. H. Robb, R. L. Banta, and John Shrady. Dr. Cronyn was elected President.

At the County Medical Society, September 26, Dr. J. O. Tansley read a practical paper on nasal difficulties in ear diseases. Dr. D. M. Cammann gave his experience with terebene in some lung diseases. In the discussion on the first paper, Dr. Tansley and Dr. O. D. Pomeroy expressed the belief that stenosis of the eustachian tube was of the rarest occurrence, while Dr. David Webster said that during a visit to Politzer the past summer he saw him carry out the practice which he often resorted to, namely, dilation of the tubes for stenosis by rubber bougies. Politzer was also accustomed to syringe out the tube and middle ear with warm water, while in their remarks some of the gentlemen present had given warning against the danger of fluid entering the tube during cleansing of the nostrils.

Several distinguished physicians of foreign countries were in attendance on the twelfth annual meeting of the American Gynecological Society, held at the New York Academy of Medicine, September 13, 14th, and 15th, among them being Drs. A. Martin, of Berlin; Dr. Unna, of Hamburg; Dr. A. R. Simpson, of Edinburgh; Dr. Graily Hewitt and Dr. Bantock, of London; Dr. Doléris and Dr. Apostoli, of Paris, and Dr. Cordes, of Geneva. Dr. N. S. Davis, President of the Ninth International Medical Congress, occupied a seat at the side of the President, Dr. Skene, at one of the sessions, and was present at the reception given by Dr. Fordyce Barker. The papers read at this meeting showed on the whole a tendency to conservatism, to re-open the books and take an account of stock. The great influence of Dr. T. A. Emmet exerted in this direction the past few years seems to be bearing its legitimate fruit.

Your readers are doubtless informed ere this of the entrance of a ship at this port from the Mediterranean with Asiatic cholera on Board. Some new cases have developed among the

passengers since they were landed and quarantined in the bay. The question of the hour is whether it will gain a foot-hold here. Those physicians must be remarkably of the sanguine temperament who express the belief that should the scourge enter the city it would find a sanitary condition unfavorable for its spread. What nature has done to oppose is great, and might prove effectual; but as to the work of man, very little can be said.

R. C. S.

CINCINNATI.

THE Academy of Medicine has, after a prolonged vacation, due to the excessive heat of the summer, resumed operations with its accustomed vigor. Joseph Ransohoff, M.D., F.R.C.S., Professor of Anatomy, Medical College of Ohio, is president, and Dr. G. A. Fackler is secretary. One of the meetings since the holidays was rendered very instructive by a paper on the subject of sunstroke, by Dr. A. G. Drury. This is a subject with which the physicians and citizens of Cincinnati have been painfully familiar during the past summer. The paper handled the subject thoroughly, and brought forth a full discussion and reports of many cases. Over one hundred cases of sunstroke were received at the Cincinnati Hospital during the heated term.

The Medical College of Ohio has undergone several changes in its faculty since last winter's term. Dr. W. W. Dawson, the venerable surgeon, so well known at home and abroad, has resigned the chair of Surgery, and has been succeeded by Prof. P. S. Connor, who for a number of years had been Professor of Surgical Anatomy in this college. Dr. Connor himself was succeeded by Dr. Joseph Ransohoff, for six years Professor of Descriptive Anatomy in the college. Dr. T. A. Reamy resigned his chair of Obstetrics, and was succeeded by Dr. C. D. Palmer, Professor of Gynecology, the two chairs being consolidated. Professor Dawson continues to be the Professor of Clinical Surgery and retains his lectureship at the Good Samaritan Hospital, which is under the care of the faculty of the college. Professor Palmer has been appointed on the staff

of the Cincinnati Hospital, and will lecture there on gynecology and obstetrics. He has discontinued his clinic at the Medical College of Ohio, in the gynecological department, his work there being now carried on by his assistants, Drs. E. G. Zinke and E. S. McKee. Dr. Frederick Kebler, for some years Lecturer on Pathology and Hygiene, has been made adjunct Professor of the Practice of Medicine. Professor Forcheimer and Professor Ransohoff, of the Ohio College, have been placed on the staff of the Cincinnati Hospital, the former on Medicine, the latter on Surgery.

The Miami Medical College opened its session on September 20, with a larger attendance than last year. The opening lecture was given by Dr. N. P. Dandridge, who took for his subject *The Elements of Success in Medical Practice*, referring especially to the work of McDowell and Koch. The audience was a large one, and the lecture carefully listened to by all present. The faculty in this college remains without change.

The Cincinnati Medical Society is again under way since the vacation. Dr. R. B. Davy is president, and F. O. Marsh secretary. Dr. Davy has gone to California, and Dr. L. C. Carr, vice-president, is acting president.

Clinical lectures commenced at the Cincinnati Hospital, October 3. Four new men will be on the staff this year, all from the faculty of the Medical College of Ohio.

The old feud between the faculty of the Ohio Medical College and the Cincinnati Hospital seems to have passed into oblivion.

Four new men added to the staff of this hospital from the Ohio College at one deal, two being on already, makes twice as large a representation from that faculty as it had long ago, when they all resigned because they could not have all the appointments. Let us hope that things will go on a little more smoothly now, especially since the Ohio College, instead of arranging her lectures so as to make it impossible for her students to attend the lectures at the Cincinnati Hospital, has arranged to commence work at the early hour of 7.30 A.M., so as to

have time for the lectures at the Cincinnati Hospital. The poor students are now crammed from 7.30 A.M. till 10 P.M., with only an intermission of an hour for dinner and one for supper. Still they live and increase and multiply.

The Hamilton County Medical is a new society inaugurated in Cincinnati for medico-legal studies. It has done some good in that it expelled two of its members, charter-members too, who were practicing without diplomas. One of them had practised for a long time in this city, and had done considerable business, which is the more the shame. He drove about in his close carriage and did not deign to notice young men who had much more knowledge than he, but who, unfortunately, could not make people believe it. It is not how much you know in medicine, but how much you can make people believe you know. For some reason, here in Cincinnati, a man in a close carriage can persuade people he knows a great deal more than a man on foot.

REVIEWS AND BOOK NOTICES.

LESSONS IN PRACTICAL PHYSICS. VOL.

II.—ELECTRICITY AND MAGNETISM.

By BALFOUR STEWART and W. W. H. GEE. Sq. 8vo., pp. xx, 497. London: McMillan & Co., 1887. Philadelphia: J. B. Lippincott Co. Price, \$2.25.

In a colloquial way and in easy steps the student is taught the main points pertaining to the physics of magnetism and electricity. The experiments are well selected as bearing on the more important departments of study, and the illustrations render their performance easy to the inquirer, who may depend on the book without a teacher. The chapters on measurement are especially good.

W. R. D. B.

DISEASES OF THE FEMALE URETHRA AND BLADDER, by F. WINCKEL, M. D., of the Royal University, Munich; and DISEASES OF THE VAGINA, by A. BREISKY, M. D., of the Royal University, Vienna. Edited by EGBERT H. GRANDIN, M. D., of New York. New York, William Wood & Co. Pp. 393.

These two treatises constitute the tenth volume of "A Cyclopædia of

Obstetrics and Gynæcology," issued monthly during 1887 by the enterprising publishing house of William Wood & Co. On account of the rapid strides that these departments of medicine have taken of late years, the issue of this valuable series seems most appropriate. The volumes are clearly printed and freely illustrated, and are written by well known authorities. In Volume X. the various malformations and injuries of the female bladder and vagina are reviewed in detail, and the several operations for their relief discussed. In the text frequent reference is made to American writers and laborers in this field.

A COMPANION TO THE UNITED STATES PHARMACOPOEIA: Being a Commentary on the Latest Edition of the Pharmacopœia, and Containing the Descriptions, Properties, Uses, and Doses of all Official and Numerous Unofficial Drugs and Preparations in Current Use in the United States; Together with Practical Hints, Working Formulas, etc. Designed as a Ready Reference Book for Pharmacists, Physicians, and Students. With over 650 original illustrations. By OSCAR OLDBERG, Pharm. D., and OTTO A. WAHL, M. D., Ph. G. Second Revised Edition. New York: Wm. Wood & Co., 1887. 8vo., cloth, pp. 1216.

This volume is intended to be a companion, commentary, and supplement to the sixth revision of the United States Pharmacopœia. It is freely illustrated, and contains many features of value to the pharmacist and physician. It is arranged alphabetically, and contains descriptions of many unofficial drugs and formulæ of extemporaneous preparations in use, as well as those which are strictly official. The arrangement is such as to facilitate reference, and the condensed descriptions are in the form most convenient for those who may wish to consult them. The names of the compilers of this work are sufficient testimony to its character and worth to those who have occasion to use it. We find it a convenient and correct book of reference for pharmacy and pharmacognosy.

F. W.

THE MINERAL WATERS OF VICHY, AND THE DISEASES IN WHICH THEY ARE INDICATED. Followed by a Sketch of Some of the Principal Excursions in the Environs; with Two Colored Maps. By Dr. C. E. CORMACK. London: J. A. Churchill, 1887. Pp. 375.

This is just the book to give to patients before sending them to Vichy; but the physician should read it himself first. Our works on therapeutics contain frequent allusions to Vichy water; but the several springs have different therapeutic effects, and we must be prepared to say which is to be used in the case under consideration, as well as how often and in what quantity. In this book the springs are considered individually and therapeutically, and useful hints given as to hygiene and diet during the treatment. An interesting historical sketch of Vichy forms an appropriate introductory chapter.

WHAT TO DO IN CASES OF POISONING. By WM. MURRELL, M. D., F. R. C. P. First American, from the Fifth English Edition. Edited by FRANK WOODBURY, M. D. Published by the *Medical Register* Company, Philadelphia, 1887. Cloth, pp. 158. Price, \$1.00.

A book that passes rapidly through five editions in England, and has been republished by three different publishers in this country must have a *raison d'être*. We have learned from Dr. Murrell personally that this edition has received his sanction, and was brought out with his consent. We believe that it is the only authorized edition published in this country. It contains a description of all the substances likely to be used for poisoning, alphabetically arranged, with brief but full directions for prompt treatment. It is of convenient size to carry in the pocket or satchel, to read on your way to a case of suspected poisoning. W.F.W.

DIFFERENTIAL DIAGNOSIS: A MANUAL OF THE COMPARATIVE SEMEIOLOGY OF THE MORE IMPORTANT DISEASES. By F. De Haviland Hall, M. D., Assistant and Physician to the Westminster Hospital, London. Third American Edition, Thoroughly Revised and Greatly Enlarged. Edited by FRANK

WOODBURY M. D. Philadelphia: D. G. Brinton, 115 S. Seventh street, 1887. 8vo, cloth, pp. 255.

This book has a good table of contents and index which may be considered as essential to a book for students' use. The subject-matter reviews the principal diseases of different regions of the body, and in many cases the parallel column plan of comparing similar diseases and of indicating their differences, is resorted to. Owing to the convenient arrangement it is a good hand-book for the student, either before or after graduating. Full directions are given for the diagnosis of phthisis, including the microscopical examination of the sputum.—W. F. W.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. AUTHORS AND SUBJECTS, vol. xiii. LEGIER—MEDICINE (Naval). Washington: Government Printing Office, 1887.

The immense labor required in compiling this volume is but poorly expressed by the statement that it includes 13,405 author titles, and 12,642 subject titles, and 24,174 titles of articles and periodicals. The volume is well printed and bound, uniform with the preceding seven volumes.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

ENTEROCLYSIS IN THE TREATMENT OF ASIATIC CHOLERA.

Editors MEDICAL TIMES:

THE reading of an article in the *Journal of the American Medical Association* for July 30th, 1887, entitled "Abstract of a Lecture on Cholera and its Treatment," by Professor H. von Ziemssen, gave rise to the thoughts and reflections as stated below. In order to

have a proper understanding of what follows, it is necessary to make the following quotations:

"The lecturer spoke of the importance of the subject, of its classification, the views of different students, as Pettenkofer and Koch, in regard to the nature of the infectious material, the duration of the cholera poison, and the ways of invasion." He accepts Koch's views: "The present therapy of cholera is based on the consideration that we have to do with a specific mycotic process in the mucous membrane of the small intestine, and that the exuberant culture of the comma bacillus here is the cause of the colossal transudation into the intestinal canal; and further, that a product arises from this fungus-culture which poisons the whole organism in the most severe manner." If this be correct—and it can scarcely be longer doubted—we have first to direct our attention to the bacillus culture in the intestine; and in the second place we must antagonize its action, guard against the blood-thickening which is the result of the transudation, and against the motor-paralysis, the result of the alkaloids of decomposition of the bacilli. It must therefore be apparent that the treatment is the more efficient the sooner it is begun. So long as we have to do only with the prodromal diarrhoea, we may hope that the drugs which we give will affect the bacillary process in the intestinal wall. But if vomiting have set in, it is very probable that nothing will reach the intestine from the stomach, or at least we cannot depend on the drug acting."

"There is no difficulty in making the diagnosis of cholera algida. The attack sets in with such stormy symptoms, and the subsequent conditions develop so rapidly in a few hours, that the diagnosis is certain as soon as the physician enters the room.

"Enteroclysis and hypodermoclysis, as used by Cantani and his Italian colleagues, should be made use of immediately.* The earlier this is done the

better the chances for recovery, according to Cantani. . . . Enteroclysis is made by Cantani's method with one or two litres of a 1 per cent. solution of tannin, at a temperature of 39° or 40° C., several times a day. Of the value of the tannin infusion, which is used not merely in the prodromal diarrhoea, but in the asphyctic stage also, Cantani says: The warm mass of water certainly acts mechanically and by its heat in a way to vivify and stimulate the intestine and the whole organism, but the principal point is the stimulation of absorption, in consequence of which thickening of the blood and anuria are prevented, or actively antagonized if already set in. In many of Cantani's cases the renal secretion again became active in a few hours after enteroclysis. Cantani thinks, furthermore, that the tannin sterilizes the contents of the intestine by souring; and perhaps at the same time it forms very insoluble tannin compounds with the alkaloids of degeneration, thus rendering them harmless, and also limits the transudation from the mucous membrane by its astringent action on the blood vessels. Cantani goes on the assumption that the infusion passes the ileo-cæcal valve and enters the small intestine, sometimes even going into the stomach, as is shown by the fact that the tannin solution is sometimes vomited, or may be removed from the stomach by the stomach-pump. Cantani adds that hydrochloric acid used in a 5 per cent. solution sterilizes more powerfully than tannic acid, but is less astringent; and that corrosive sublimate, salicylic acid, boracic acid, thymol and other substances perhaps act still better than tannin; but his results with the last were so good that he made no other experiments. There are several hypothetical assumptions in regard to this method, especially the washing out of

those of hypodermoclysis. . . . Cantani's solution varied from a 1 per cent. solution of tannic acid to 2 grains in 600 ccm. . . . For abstract of Cantani's article see *Lancet*, Sept. 26th and Oct. 3d, 1885. . . . Vincenzo Vitone used successfully the following solution for enteroclysis: warm water 100 grams, tannic acid 3 grams, gum arabic 10 grams, laudanum grt. 12, in a child of 8 years. E. Vilcani has used as much as 15 grams of tannic acid to 2 litres of water." [*Trans.*]

* "By Enteroclysis is meant the injection of a large quantity of fluid into the intestines. Hypodermoclysis is the injection of a large amount of fluid into the subcutaneous cellular tissue. . . . Cantani says that the practical results of enteroclysis in cholera were even more splendid than

the small intestines;* but the reports of the Italian physicians are so favorable that the value of this simple procedure cannot be doubted. . . . The method seems to have an undoubtedly favorable influence on the disease. But I would advise that the method be much simplified." And here the eminent lecturer proceeds to state his way of simplifying and modifying the method without deviating however, from Cantani's principles.

Now, then, granting that the statements as to pathology and ætiology are facts, and that the results of the therapy based upon these facts are *propter hoc*, is not the principle of the application of enteroclysis capable of a radical modification and a physiological simplification? To inject one or more litres of liquid through the rectum into the colon, and by sheer mechanical force push it through the ileo-cæcal valve into the small intestine, and on up through the convolutions of the ileum, jejunum and duodenum into the stomach, until it issues forth at the mouth is, to say the least of it, unnatural and unphysiological, though we admit that it is possible. The possibility of such a proceeding depends upon a partial or complete paralysis of the intestinal muscular coat, or, on the other hand, the attempt is frustrated by the production of hyper-peristalsis. In either event, though the cholera be cured, it is accomplished at the expense of injury done to the alimentary canal. It is humbly suggested that this can be avoided. It is both possible and feasible, and therefore practical, to do the operation of enteroclysis, not in opposition to, but in harmony with, the natural and physiological activities of the intestinal canal.

Let it be assumed that the culture of the comma bacillus in the patient's intestine has reached the height of its exuberance; that the alkaloid ptomaines of the microbes have poisoned the whole organism; that the Hippocratic countenance, the shrill falsetto voice, the washer-woman's skin, the icy breath, indicate speedy dissolution; that the stomach on account of uncontrollable vomiting cannot be used as a vehicle to

convey remedies to the intestines' below; that all known remedies, including hypodermoclysis, have been applied in vain; let now the physician, armed with his instruments and remedies ready for use, with full reliance upon his anatomical knowledge, perform the operation; not through the distal end of the bowels, the anus; but at the right hypochondrium into the proximal end, the duodenum immediately below the pylorus; not into the rectum, but at the right iliac fossa into the cæcum. Let him if necessary boldly make an incision through the abdominal walls sufficiently large, so as to make the entrance of the needle of the aspirator or syringe into the lumen of the gut an absolute certainty. Then there can be no hypothetical assumption in regard to the washing out of the small or large intestine; no doubt as to the germicide reaching the citadel of the enemy; no question as to the acidulated fluid neutralizing the alkaloid products of degeneration; no peristaltic force or ileo-cæcal valve to impede the free transmission of the injected fluid.

Nor can such a procedure be regarded as a particularly dangerous one. Indeed the physician is justified in subjecting the collapsed cholera patient to considerable risk under the circumstances. Contrasted with the blood-curdling operations of the laparotomist and other abdominal surgeons who boldly invade the peritoneal cavity for the purpose of removal, even, of one or the other of the abdominal or pelvic organs with comparative immunity and perfect impunity, enteroclysis performed in the way suggested, would certainly seem to involve but a small amount of risk.

A. S. GERHARD, A. M., M. D.
Philadelphia, Pa.

NEW REMEDIES AND CLINICAL NOTES.

GONORRHEA. — Dr. Brewer, of the Roosevelt Hospital, says that of thirty cases of acute gonorrhœa, recovery took place in *all* within two weeks, the average being 7.78 days. The treatment consisted of warm solutions of the bichloride of mercury, from 1 to

* "There is no doubt that fluids can be thrown beyond the ileo-cæcal valve."—[*Trans.*]

6,000 to 1 to 10,000. Two quarts of the solution, commencing with a temperature of 98° , then as hot as the patient could bear, were used twice daily from a fountain syringe. Eight cases of chronic gonorrhœa treated by this plan were completely cured within 9.4 days. (*Weekly Medical Review*).

THE DIFFERENTIAL DIAGNOSIS BETWEEN AFFECTIONS OF THE MIDDLE EAR AND THOSE OF THE LABYRINTH.—D. B. St. John Roosa, M. D., of New York, read a communication on this subject before the American Otological Society, in which he said that there has been some difference of opinion as to our ability to differentiate between affections of the middle ear and those of the labyrinth. Many cases usually classed under affections of the tympanum should be placed among diseases of the cochlea or of the acoustic nerve. He referred to the records of seven recent cases, which were nearly all in the middle period of life, when its cares and troubles are most pronounced. Such patients often exhibit symptoms of nervous exhaustion. Such cases are often benefited by the administration of strychnine, arsenic, and quinine. Proper hygiene should be employed. The universal use of the watch as a test of hearing occasionally leads to false conclusions on the part of the general practitioner, who discovers loss of hearing by testing with the watch alone. When used alone, he regarded the watch as insufficient. When both the watch and the voice are heard badly there is cause for anxiety. Many persons have lesions which cause them to hear the watch and certain other tones badly who can hear the voice well. In the opinion of the author, those persons who hear the conversation better than the watch, who hear better in a quiet room than where there is noise, and who hear the tuning fork better through the air than through the bone, suffer from an affection of the labyrinth or nerve, and not from disease of the tympanum, although the latter may be engrafted upon the previous affection. The general adoption of this view would save a good deal of local treatment of the naso-pharynx and tympanum, and

greatly simplify and improve our therapeutics.

TREATMENT OF OTORRHŒA.—H. Knapp, of New York, in acute cases of otorrhœa, uses boracic acid as an antiseptic and cleansing powder. The patient is directed to cleanse the ear with the syringe three times a day. The powder is then introduced by means of a spoon until the canal is loosely filled. If the powder becomes moist, the patient is directed to syringe the ear and renew the application. The majority of acute cases do not require any other treatment. In chronic cases, he removes any polypoid growths or any carious bone that may be present, and then uses alcohol in fifty or sixty per cent. strength, or absolute, with sulpho-carbolyte of zinc, and changes this with nitrate of silver. He continues this treatment until the ear is dry and there is no discharge, and directs the patient to do nothing beyond using a light cotton plug to filter the air. No attention is given to the perforations except in case a perforation of moderate size has perfectly clear edges, and remains in the same condition for weeks or months. Here he pastes a small piece of sized paper over the perforation. In many cases the hearing is improved, and it seems to stimulate the healing of the perforation.

SYPHILITIC DISEASE OF THE EAR.—At the last meeting of the American Otological Society, Dr. Samuel Theobald, of Baltimore, reported a case of syphilitic disease of the labyrinth, exhibiting remarkable variations in the degree of deafness. The patient was a man about thirty-four years of age, the subject of inherited syphilis. In one ear the deafness was nearly complete, and in this ear there was but little variation. In the other ear frequent and sudden relapses occurred, after the hearing on several occasions had been brought up almost to the normal standard. Within twenty-four hours the hearing would fall from the ability to distinguish words in a whisper at twenty inches, to a degree of deafness which would require the same words to be spoken in a loud voice. Iodide of potassium was given with but little effect, but decided benefit

resulted from the administration of bichloride of mercury in combination with muriate of ammonia.

REMEDIES FOR UTERINE HEMORRHAGE.

—Dr. C. D. PALMER, of Cincinnati, read a paper upon the above subject at the recent meeting of the American Gynecological Society; his conclusions were as follows:

1. *Ergot*: In chronic hyperæmia and subinvolution; effects less marked in multiparæ.

2. *Digitalis*: In uterine hemorrhage from cardiac disease; in atonic states, with weak heart and low arterial tension.

3. *Cannabis Indica*: Uncertain; indications not yet defined

4. *Bromides*: Sexual excitement and ovarian congestion; some cases of ovarian congestion.

5. *Arsenic*: Chronic endometritis; menorrhagia in young girls; less useful at the climacteric.

6. *Gallic Acid*: The objections to this drug render it of limited value.

7. *Hamamelis*: For slight, long-continued flux, with dark venous blood, the hemorrhage being passive, it is the remedy *par excellence*; this occurs in subinvolution, chronic endometritis, retroversion, and some fibroids.

FORDYCE BARKER recommended the bromides in full doses several days before the menstrual period, with arsenic during the intervals. If the flow continue too freely, he gives the fluid extracts of hydrastis and hamamelis, of each thirty minims; nux vomica can be added for atony if desired. He recommended viburnum in passive hemorrhage and threatened abortion. At the climacteric he uses the protiodide of mercury with iron and opium. For profuse hemorrhage in very young girls he has used cones of alum wrapped in linen and inserted into the vagina.

APOMORPHINE FOR ACUTE BRONCHITIS.

R Apomorphinæ.....gr. ss
Potassii bromidi.....ʒiv
Tinct. sanguinarie.....fʒj
Syr. toluana.....q. s. ad fʒiv

M. S.—A teaspoonful every two hours, in water.

Half a glass of Rubinat water is to be taken before breakfast.

(WILCOX, in *St. Louis M. and S. Journ.*)

CREASOTE FOR PHTHISIS.—Jaccoud has long recommended beechwood creasote in phthisis. He gives two ounces of cod-liver oil, three minims of creasote, and one minim of peppermint, in divided doses, during each day. If the patient be unable to take the oil, he substitutes glycerine and brandy.

(*N. O. Med. and Surg. Journ.*)

VOMITING IN PREGNANCY.—A favorite method of treating the hyperemesis of pregnancy in Vienna is as follows: A rubber speculum is introduced into the vagina so that the neck of the uterus is engaged as much as possible, when the outer end is elevated, and a ten per cent. solution of nitrate of silver is turned in, so that the neck of the uterus is bathed with it for some ten minutes.

(*Maryland Medical Journal.*)

TREATMENT OF NEURALGIA BY REFRIGERATION.—In the *Medical Record*, Dr. G. W. Jacoby calls attention to the treatment of neuralgia by means of intense cold. His method consists in the atomization of chloride of methyl along the course of the affected nerve. The apparatus is imported from France, at a cost of \$37.50, and the methyl must be obtained from the same country, for the present.

[If cold be of value in these cases, it could be applied in a simpler manner. We recall a severe case of neuralgia in the feet, in which prompt relief invariably ensued when the feet were placed in a bucket containing cold water.]

IMPROVED FORMULA FOR BLAUD'S PILLS.—

8 Ferrisulphatis.....ʒj
Potassii carbonatis.....gr. xxxvj
Sacchari pulveris.....gr. xij
Tragacanthæ pulveris.....gr. iv
Glycerini.....ʒv
Aque destillate.....ʒv

Powder the iron finely, add the sugar and gum, and mix well. Finely powder the potassa in another mortar, and thoroughly incorporate with it the glycerine and water. Transfer this to the mortar containing the iron; beat until the mass becomes green, and divide into twenty-four pills. Coat with gelatine, previously drying in hot air if necessary.

(MABEN, in *Chemist and Druggist.*)

FRACTURE OF THE SKULL.—Dr. Deaver advocates early trephining in punctured fractures of the skull. He recently showed a case of compound fracture with depression of the skull, in which he had trephined and elevated the depressed parts, with good results. The temperature did not rise above 100° F. during three days after the operation. In injuries of the head he gives calomel, gr. $\frac{1}{4}$, and Dover's powder, gr. ij, every three or four hours, at intervals during the first seven to ten days, to prevent inflammation. If the patient do not sleep, and is restless, give bromide of potassium, grs. xx or xxx.

TREATMENT OF CONSTIPATION BY FARADISM.—In the case of a woman who had not defecated for two weeks, and who instantly threw up all medicines, a city physician secured a passage by a few applications of Faradic electricity and kneading of the abdomen.

For VARICOSE VEINS, Prof. Pancoast prefers subcutaneous ligation. He showed at his clinic, October 5th, a patient who had been operated on two years before, with perfect cure. Prof. Pancoast inserts a pin under the vein, throws a ligature around the pin, and the effusion of plasma occludes the vessel.

The disfigurement of a cicatrix can be greatly lessened by gently rubbing it with the hand for a few minutes once or twice a day, keeping up the treatment for some time.

Prof. Garretson's favorite prescription for erysipelas is:

R Quinina sulphatis..... 3j
Tinct. ferri chlor..... f3j
Tinct. cinchonæ comp..... 3ij M.
Sig.—Apply locally.

When in the diarrhœa of children the passages are fetid, and there is pain in the abdomen, Prof. Atkinson prefers the following prescription:

R Liquor. sodæ chlorinatæ.....gtt. xvj
Tinct. catechu.....f3ij
Tinct. opii camphoratæ.....f3ij
Syrupi.
Aquæ anisi.....āā...f3j M.

Sig.—f3j every three hours; or, better, a dose after each passage.

DISINFECTION OF TYPHOID DISCHARGES BY LIME.—A simple and easy way of disinfecting the stools in typhoid fever, according to Prof. Waugh, is to put several heaping teaspoonfuls of chloride of lime in the vessel after each emptying. Each passage is thus made innocuous, and, beside that, it is much easier to disinfect a single stool than a whole vault.

And, since in dangerous cases the patient is likely to pass the feces involuntarily in the bed, to the great danger of the physician and the nurse, Prof. Waugh recommends that the patient be put on the wire mattress, with simply a blanket or two under him. These could be easily disinfected, in case of an involuntary passage.

In a case of acne rosacea, advanced to the second stage, *i. e.*, involvement of the sebaceous glands, with papules and pustules, Prof. Shoemaker gave the following treatment:

R Ung. hydrarg. oleatis.....3j
Ung. aquæ rose.....3j
M. S.—Apply once a day.
R Ex. ergoti flu.,
Glycerini,
Tinct. ferri chlor.....āā 3j
M. S.—3j ter die.

For chronic psoriasis, Prof. Shoemaker gets good results by giving, hypodermically, arsenite of soda, gr. $\frac{1}{8}$, twice a week, and increasing to gr. j.

MISCELLANY.

EDITORIAL COMMENTS OF THE LONDON JOURNALS UPON THE NINTH INTERNATIONAL MEDICAL CONGRESS.—The *British Medical Journal*, September 17th, 1887, says: While the professors of the art of war in the various countries conceal from each other with a jealous care their respective inventions for injuring and destroying mankind, the members of the medical profession from every civilized nation meet in periodic congress to exchange their varied experiences, and to share their mutual successes and discoveries, careless of national or local credit if the general cause of science is advanced and the welfare of their fellow man is secured.

From this point of view the warmest thanks and congratulations of the stay-at-home members of the British Medical Association are due to those of its ranks who braved the dangers of a long sea voyage, and incurred the necessarily heavy expenditure of so great a journey, in order to represent British medicine at the International Congress held last week at Washington. We may rest well satisfied that the credit of England was worthily sustained by Seaton, Power, Pavy, West, Langdon Down, Hewitt, Simpson, and the other leading practitioners, both metropolitan and provincial, who represented us on this occasion, yet one is almost disappointed at the paucity of the number of the visitors from this country, compared to those from the rest of Europe. This is owing in some measure perhaps to a factor which militates against the success of all these Congresses with our countrymen—namely, the neglect of the study of foreign languages by the mass of our practitioners, which makes the papers read by the representatives of other countries unintelligible and uninteresting to our people. How few there are of our members who could take an intelligent part in a medical discussion at Paris or Berlin, or reply in decent French or German to a vote of confidence or thanks from their brethren from abroad.

But it is to remove difficulties like this, and to smooth away prejudices between the representatives of various nations, that one expects so much from these International Congresses. In the days of our ancestors, no such cause of unpopularity at a meeting could have arisen, for Latin was the universal medium of inter communication between men of science. It would, however, be to seek after a hopeless chimera to attempt once more to secure a common language; but surely the Congress might pass resolutions deprecating the acquirement of the dead languages as the primary objects of preliminary education for the medical profession. Latin, for instance, is useful as a key to a refining and ennobling literature, and was once the tongue of science; but to-day living Thought and Knowledge have passed

from Rome to London, Berlin, and Paris. Therefore, it behooves those who care that medicine should not be sectional, but one great whole, to forsake ancient media of communication, and to inculcate the attainment of a colloquial and scientific knowledge of living growing languages, wherein are contained the wisdom of the master-minds of to-day. Every medical man ought to possess a working knowledge of two European languages besides his own, at least.

This leads one, however, to a weak and unpractical aspect of the International Congress. It is true that a great assemblage of intelligent physicians, collected from all lands to discuss in many languages the cure of disease, or to enter into collective investigation of its causes, is a striking sight, but can it compare in use or grandeur with a World's Parliament of Medicine engaged in devising measures to break down ignorance and national prejudice, and in endeavoring to restore that unity of the profession which existed in the Middle Ages, whereby learners were enabled to pass from school to school through many lands, without any loss of time or legal rights? So with minds ripened by foreign travel, they could finally return to practice in their native land, wiser and more capable physicians through intelligent observation of various methods of treatment, and more useful citizens through experience of the men and manners of other countries.

For the tone and the matter of the papers read at Washington we have nothing but unqualified praise; they dealt, with few exceptions, as should always be the case at an International Congress, with general principles and not with special cases, and treated these in an original and useful manner; but one cannot but regret the almost total absence of any reference to those subjects which have to do with the international relations of the various schools of medicine and thought; and the neglect of those details, which are, perhaps, small in themselves, but which render the approach to a uniform system of treatment, to say nothing of a universal nomenclature, an impossibility.

Surely if the text-books of Ziemssen, of Trousseau, and of Graves are equally valuable in the translations of many nations, if the labors of pharmacologists of all countries are received with equal favor and quoted with judicial impartiality by the teacher of every school, it would be possible, as it is certainly desirable, to compose one official *pharmacopœia* for the civilized world, which should replace the various formulæ current at Paris, Vienna, St. Petersburg, and the other capital cities, exactly as the *pharmacopœias* of Dublin, Edinburgh, and London, were replaced by one entitled "British," to the great benefit of pharmacy in this country. To parody the title of a well-known painting, "It can be done! and the International Congress ought to do it."

The Lancet says: The success of the Ninth International Medical Congress is a matter for thankfulness. The interruption of the series of Congresses would have been little less than a calamity and a disgrace for the profession in all nations. Any serious imperfection in the meeting, either as respects numbers or the character of the discussions, would have been but little less unfortunate. But the Congress has been held under most honorable auspices; the famous hospitality of the United States has been fully realized; and those who went great distances to attend the Congress have been amply rewarded, and will return to their various countries and duties with higher impressions of their calling and deeper convictions of its progress, both on its scientific and its medical side. We cannot but rejoice that our own country was well represented in many of the sections; the names of many well known English physicians and surgeons will have been noticed in the reports which were received by cable from our special correspondents at Washington. We confess that we read the report of the concluding proceedings of the Congress with the most pleasurable emotions, and not least the remarks of the English members. A breakdown of the Congress in Washington would have been only a less acute pain to us than a break-down in London. And we accept the concluding speeches of

our countrymen and of our *confrères* of Berlin and Paris, Dr. Martin and Dr. Landolt, and others, as proof that the Congress has been worthy of its predecessors; that it contained a larger gathering of foreign members than any of them, and that it is calculated to promote the advancement of our art. Those in the United States who worked to this end, in spite of much discouragement, well deserve the gratitude which was accorded to them by formal resolution. We have purposely abstained in our allusions to the Congress from pointedly referring to the domestic differences among our brethren in the States, which threatened to seriously mar the success of the Congress, if not to prevent it altogether. Those who persevered in spite of all opposition, and who have carried through the Congress so successfully, may well be satisfied. They have done a great service to their country and to their profession in all countries. It is not necessary for us to say that they committed no faults and made no mistakes. Such praise is not for mortals in a world so full of "spilt saltpetre" as ours. But they have carried through the Congress, and we thank them. There is yet one other service they can do: in any official action that now devolves upon them, to strive to obliterate the last relics of discord, and to hand on the light of truth and charity, undimmed and unqualified, to those in Berlin on whom will now rest the burden of responsibility for the next Congress. They can well afford to be magnanimous, and to help to make the representation of the States at Berlin so complete as to bear no traces of recent division.

The scientific value of the addresses and papers read at the recent Congress cannot be estimated till we have seen them in full. On the whole, judging from abstracts of the papers and discussions, we are inclined to say that they have been practical rather than theoretical, and have had reference to useful rather than transcendental aspects of medicine. Neither, so far, have we met with much indication of original matter in the papers. But this is no dispraise. It was meet that in the most practical nation in the world papers

and discussions should take a practical turn, and deal with questions at their practical point. No branch of medicine can be said to have been neglected, from that which deals with the brain to that which deals with the risks of decayed teeth, including, by the way, several instructive cases of pyæmia. The statistics of vaccination were much advanced in a paper by Dr. Josef Körösi, Director of Communal Statistics of Buda-Pesth (to which we hope to make more special reference), and other questions of Public Medicine were made subject of interesting discussion. Every branch of medicine was well represented—notably the ophthalmic, the gynecological, and the dermatological; so that we venture to forecast that the volumes of the Transaction Reports will have considerable practical importance.

A WELL EARNED COMPLIMENT.—Speaking of the *Medical Record's* report of the International Medical Congress, the *American Practitioner and News* says: "Dr. Carpenter, who superintended the work for the *Record*, performed his task so quietly and unostentatiously that one might easily have concluded that the undertaking had been abandoned. But the full, accurate and well-arranged reports that have reached us not only dispel any such doubts, but characterize Dr. Carpenter as one of the most capable journalists, medical or secular, in the country."

PROF. A. VAN HARLINGEN read notes of three cases of leprosy, and presented two patients suffering with the disease, at the meeting of the Philadelphia County Medical Society held October 12th.

DR. CARL SEILER read a paper on "Chronic Nasal Catarrh as an Etiological Factor in the Production of Acne of the Face."

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY FROM OCTOBER 9 1887, TO OCTOBER 22, 1887.

LIEUT.-COL. CHARLES T. ALEXANDER, SURGEON.—Relieved from duty as attending surgeon and examiner of recruits at St. Louis, Mo., and ordered for duty at Fort Meade, Dak. S. O. 235, A. G. O., Oct. 8, 1887.

MAJOR W. D. WOLVERTON, SURGEON.—Detached as member of Army Retiring Board at Washington, D. C., convened by S. O. 78, A. G. O., April 5, 1887, vice

MAJOR C. C. BYRNE, SURGEON.—Hereby relieved. S. O. 241, A. G. O., Oct. 15, 1887.

CAPTAIN T. A. CUNNINGHAM, ASSISTANT-SURGEON.—Died, Oct. 12, 1887, at Fort Lewis, Colorado.

CAPTAIN EDWIN F. GARDNER, ASSISTANT-SURGEON.—Relieved from duty at Fort Reno, Indian Territory, and ordered for duty at Fort Lewis, Colorado. S. O. 241, A. G. O., Oct. 15, 1887.

CAPTAIN JOHN J. COCHRAN, ASSISTANT-SURGEON.—Now on duty at the Presidio of San Francisco, Cal., is assigned to temporary duty at Headquarters Division of the Pacific, as assistant to the Medical Director of that Division. S. O. 244, A. G. O., Oct. 19, 1887.

FIRST LIEUTENANT C. B. EWING, ASSISTANT-SURGEON.—Granted leave of absence for one month, on surgeon's certificate of disability. S. O. 112, Department of Missouri, Oct. 18, 1887.

APPOINTMENT.

NATHAN S. JARVIS.—To be Assistant-Surgeon, U. S. Army, with the rank of First-Lieutenant, Oct. 14, 1887.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING OCTOBER 22, 1887.

PASSED-ASSISTANT-SURGEON H. G. BEYER.—Ordered to hold himself in readiness for orders to the "Trenton."

ASSISTANT-SURGEON S. S. WHITE.—Ordered to hold himself in readiness for orders to the "Trenton."

PASSED-ASSISTANT-SURGEON F. B. STEPHENSON.—Detached from the "Bache," and ordered to the Navy Yard, Boston.

ASSISTANT-SURGEON E. P. STONE.—Detached from the "New Hampshire," and ordered to the "Bache."

SURGEON T. H. STREET.—Detached from the "Patterson," and placed on waiting orders.

A NAVAL MEDICAL EXAMINING BOARD is now in session at the Naval Hospital, Philadelphia, Penna., for the purpose of examining candidates for admission to the Medical Corps of the Navy. Circular of information can be obtained on application to the President of the Board. There are twelve vacancies in the list of Assistant-Surgeon.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDING OCTOBER 8, 1887.

PASSED ASSISTANT-SURGEON FAIRFAX IRWIN.—Granted leave of absence for twenty-five days. Oct. 5, 1887.

PASSED ASSISTANT-SURGEON JOHN GUIERAS.—Granted leave of absence for seven days. Sept. 23, 1887.

ASSISTANT-SURGEON SEATON NORMAN.—Upon expiration of leave of absence to rejoin station, New York. Oct. 4, 1887.

PHILADELPHIA MEDICAL TIMES.

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NOVEMBER 15, 1887.

VOL. XVIII.

ADDRESS.

THE PHYSICIAN IN LETTERS.

Read before the American Academy of Medicine, at its Meeting in Washington, September 3d, 1887,

BY BENJAMIN LEE, A.M., M.D., PH.D.,
Of Philadelphia.

IT is now thirty years since a medical society, composed entirely of students connected with one of the medical colleges in the city of New York, met to celebrate its first anniversary. The orator of the evening—for, of course, nothing less than an oration would satisfy the dignity of the occasion—was he who now addresses you. These thirty years—how full of events have they been! Did ever another generation in another country crowd into its narrow limits so much that was grand, so much that was awful, so much that was agonizing, so much that was inspiring, stimulating, uplifting? These thirty years have silvered his head and furrowed his brow, and it would be to his shame had they not in many respects modified his opinions. But the message which he felt constrained to deliver to his fellow-neophytes at the outset of their careers is still the burden of his vision; and in glancing over the old manuscript (which had lately come to light) he found in its yellow, time-stained pages and faded characters so little to regret and so much to

commend that he has ventured to reproduce its thoughts almost in their original garb. The subject was: "The Connection existing between Medical Literature and that of the Other Professions and General Literature;" and it was handled much as follows:

It is highly important to the physician, if he wishes to obtain celebrity in his profession, or if he desires to acquire a wide influence for the nobler purpose of extensive usefulness, that he should be not merely what his diploma styles and makes him,—*Medicinæ Doctor*, an expert in medicine,—but that he should also cultivate a thorough acquaintance with all the branches of a polite education; that he should be familiar with the current literature of the day, and know something of that of the other professions and sciences; that he should be "a scholar, and a rich and ripe one."

Other things being equal, the most agreeable man in society will be the most successful and popular practitioner; and the most agreeable man is he who best understands how to accommodate both the matter and the manner of his conversation to the calibre, tastes, modes of thought and intelligence of his interlocutor. No man of ordinary sense would introduce as a probably pleasing topic to a clergyman, the theatre or race-course, or treat a gay girl in a ball room to a deep disquisition on

theology or political economy. But many who would avoid these naked rocks in the sea of social intercourse might strand on the shoals of ignorance,—at a loss to know what subjects to introduce under such differing circumstances or incapable of intelligent conversation on appropriate topics. Such men will always be at a disadvantage in the struggle for popular favor. If the physician aspires to be a medical author, he will find that familiarity with the writings of standard authors on other subjects will lend him greater facility in treating of those connected with his profession. He thus obtains an ease of manner, a clearness of diction, and an elegance of expression attainable in no other way; while, at the same time, he is laying up a vast store of information on which to draw for purposes of example and illustration. His powers of reasoning will be greatly improved and energized by the perusal of logical discussions in non-medical works. Even at the bedside he will find himself able to array his ideas in more accurate lines and arrive at his conclusions with greater readiness and precision as a result of such mental discipline. Aside from these advantages, complete change and divergence of the current of his thoughts will afford a respite from the constant harassing cares of the profession more refreshing even than complete rest; and he will return to the consideration of his professional problems better able to solve their intricacies and penetrate their depths in consequence of the improvement in his mental tone. A daily habit of such relaxation will become, like his recess to the schoolboy, a period of intense enjoyment; all the more delightful because hedged in on either side by labor.

To this cultivation of the love for and appreciation of all literature, and to the consequent habits of thought and beauties of style were owing—I think it can scarcely admit of a doubt—in great measure, the reputation enjoyed by the medical practitioners of the city of Philadelphia and the immense success of her medical schools during the early part of this century. What was there to account for it if not the rich and ripe scholarship of the Bonds,

the Wistars, the Rushes, the Physicks, the Cadwaladers, and others whose names are no less revered: a scholarship which made itself apparent in every sentence they penned and every word they uttered. Was Philadelphia so much larger than her sister cities? Were her hospitals so much more numerous, her dispensaries so much more crowded? We know that, on the contrary, material for clinical study existed in greater abundance elsewhere. Works were constantly issuing from the medical press of that city characterized not only by deep research and close observation, but by an ease and beauty of style and cogency of reasoning which could only have been acquired by familiarity with authors whose works are not found on the shelves of the medical library, and by a studied cultivation of all the available powers of the mind. These characteristics rendered them interesting even to the unprofessional reader,—deeply fascinating to the student of medicine.

But it is not only of the advantages to the physician, in whatever aspect of his life, of an acquaintance with general literature that I would speak, but of the opportunities which present themselves for distinguishing himself in the field of letters. The peculiarly harassing nature of his duties, the many calls upon his time, the impossibility of obtaining a quiet and uninterrupted hour, the broken rest and irregular routine are all, it must be confessed, highly inimical to that tranquil, undisturbed condition of the mental powers which is perhaps most favorable to the work of composition. But aside from this, it must be admitted that he enjoys certain opportunities in the line of his daily observation, and essential habits of thought which are not possessed by members of other professions.

It is not to be expected that he should shine as an author of theological tomes, and yet from the time when the beloved physician penned his former and his latter treatises down through the "*Religio Medici*" to the appearance of "*Rab and his Friends*," physicians have not been wanting who could wield the sword of theological controversy,

or administer the balm of sweet religious contemplation.

Of law, the medical man has been, until of recent years, too profoundly ignorant. He has had an indefinite idea that the principal function of the Goddess of Justice was to maintain a system by virtue of which he was liable at any moment to be interrupted in the round of his daily duties, dragged *volens nolens* before a judge, in a very bad-smelling court-room, questioned and cross-questioned by bullying lawyers until he feared to swear to his own identity, unmercifully snubbed, and dismissed with a reprimand for contempt of court. Or, possibly, he may have made her acquaintance through the medium of a suit for malpractice, because, forsooth, he did not succeed in reversing the decrees of Divine Providence, or turning back the wheels of nature. A better day, however, has dawned, and lawyers now sit at the feet of doctors-in-medicine to learn the principles of Medical Jurisprudence. The intricate interweaving of the two professions is every day becoming more thoroughly recognized and affording a wider field, not so much for investigation as for formulation, codification and adjustment.

In the domain of the natural sciences, the physician holds a decided vantage-ground. His necessary acquaintance with anatomy, comparative as well as human; with botany; with chemistry, organic and inorganic; and with the climatic peculiarities of different regions, place him in a position to acquire, with very little additional labor, an accurate knowledge of those branches of natural philosophy with which his own science is more or less intimately connected—of chemistry, for example, in its more extended application to mineralogy and geology, of natural history, and of physical geography. Not only has he been grounded in the elements of these sciences, but he has acquired just those habits of thought and methods of investigation which are necessary to their successful cultivation.

On the other hand, his practical knowledge of the workings of the human mind in its least guarded moments, in sickness as well as in health,

in poverty as well as in prosperity, in sorrow as well as in joy, not only the "*mens sana in corpore sano*," but the "*mens sana in corpore aegro*," and the "*mens agra in corpore sano*," make him, in spite of himself, something of a mental philosopher and metaphysician.

I am at a loss to account satisfactorily for his neglect, until comparatively very recent times, of a department of literature which, well occupied, is profitable both to the reputation and the pocket, and for which his daily observation abundantly fits him. I refer to that class of writings in which the exhibition of the emotional side of human nature is the principal aim and of which the novel is the type. Who so capable of telling tales of intense excitement, of heart-rending sorrow, of rapturous joy, as he who, day by day, stands by the couch of some darling object of affection, sees the agonizing solicitude of those who love and watch as the hopes of recovery grow fainter, the breathless intensity of expectation with which they await his opinion, the heart-sickening anguish with which his look of increased anxiety is received, the thrill of delight which follows his announcement that the danger is past? All the wonderful opportunities too afforded by the vagaries of mental disease are at his disposal. And yet, with one or two exceptions, all these rich placers have been left unworked.

The connection between Wit and Humor and the medical habit of thought will, I doubt not, be generally considered a rather obscure one, and yet I think I can show that it is real.

The greatest of modern English satirists has demonstrated to us the strong affinity existing between charity and humor—has shown us how the soul that has been induced to smile by some kindly touch of wit, so far from being less favorably disposed toward its race, is all the more ready to listen to the cry of distress and to befriend the friendless; how the sphincter, which closes at the same time the bowels of compassion and the mouth of the purse, is relaxed by the general titillation; how reserve and pride and churlishness are thrown off their guard by the

awakening of mirthful emotions and under their genial influence the unfortunate is pitied, not only from the bottom of the heart, but from that lowest deep of all depths, the bottom of the pocket. Should I fail to make as clear and convincing a demonstration as his, attribute it not to the obscurity of the subject, but the deficiencies of the pleader. Wit and humor—and I shall speak of them together and interchangeably—involve the conception of such a collocation of ideas as is designed to produce mirth or laughter. Now laughter—as we are told by Hobbs, who has dissected the human intellect as carefully and skilfully as any other English metaphysician—can only occur when there is in the mind a sense of its own superiority over some other object which it has in view, or, what is the same thing, of the inferiority of that object to itself. Laughter is the result of this consciousness of another's inferiority. Whatever other element of thought there may be combined with it, this must always be present. This theory derives support from the custom which has prevailed in European courts, from time immemorial, of having idiots at hand under the name of jesters or fools, whose innocent mistakes might arouse this sense of superiority in the minds of the nobles and thus stimulate their risibility and sharpen their wits. Now, if this proposition be granted, I submit that no class of men have so grand an opportunity for the cultivation of the art which shall produce laughter as physicians. In his daily, unrestrained, familiar intercourse with his patients, in his sudden and unexpected incursions, not to say intrusions, at seasons when the least preparation is made to receive strangers, the least pains taken to conceal improprieties or deficiencies, the family doctor must constantly be placed in precisely the position mentioned; namely, one in which his own superiority and another's inferiority, even though temporary and accidental, are glaringly evident. And although he may so school himself that none shall perceive his recognition of the circumstances, though his good breeding and self-command be such that not a smile shall visit his grave face, though

professional honor and gentlemanly feeling will ever seal his lips to the mention of them, yet if he be a man of the slightest perception of the ludicrous, such occurrences must attract his notice and afford unfailling means of practice for the development of his laughter-arousing faculty.

Again, Locke tells us that "Wit lies in an assemblage of ideas, and in putting those together with quickness and variety wherein can be found any resemblance or congruity to make up pleasant pictures or agreeable visions in the fancy." Now it is just such an exercise of the mind, with one exception, that the whole education of a physician tends—and designedly—to foster; and that his daily and hourly experience strengthens and stimulates. When he enters the sick-room his whole energies are bent to determine with what form of disease he has to deal. To ascertain this, he calls to his assistance every possible means of diagnosis. He invokes the aid of his every sense; all the subtle variations of the pulse, that trusty index of the heart; the hue of the cheek, whether red with the flush of fever or white with the ashy pallor of exhaustion; the eye, cold and expressionless or brilliant with flashes of unnatural fire; the tongue, as sure an indicator of disease as of character; the respiration, quick, gasping, panting, or slow and labored; the sound of the vital air, as it rushes into all the minute branches of the bronchial tree, making music like the sighing of the summer breeze among the leaves of the forest, or harsh, grating, and unmelodious. All these and many other particulars are noted in rapid succession by the skilful physician almost by intuition. These are so many ideas, of which he makes an assemblage, putting those together "wherein can be found any resemblance or congruity," although this latter process has become so much a part of his second nature as to require no conscious effort on his part. This, too, he does with "quickness;" for the bedside of a man sick unto death is no place for sluggishness of thought or action. It is the work of an instant with him to collocate the congruous ideas, bringing each into its appropriate place, allowing each its due prominence,

and thus to determine the malady and to propose the remedy. Now I claim that if the subject of this mental process be changed from a painful to a pleasant one, the habit and method of thought will still remain, to be applied just as successfully as before. That the physician may be a wit and humorist we have the most convincing proof in the person of one of our distinguished honorary members, Dr. Oliver Wendell Holmes, with the reading of one of whose delightful little poems, as a final link in my chain of reasoning, I propose to close this somewhat discursive paper:

THE STETHOSCOPE SONG.

A PROFESSIONAL BALLAD.

THERE was a young man in Boston town,
He bought him a stethoscope nice and new,
All mounted and finished, and polished down,
With an ivory cap and a stopper too.

It happened a spider within did crawl,
And spun him a web of ample size,
Wherein there chanced one day to fall
A couple of very imprudent flies.

The first was a bottle-fly, big and blue,
The second was smaller, and thin and long;
So there was a concert between the two,
Like an octave flute and a tavern gong.

Now, being from Paris but recently,
This fine young man would show his skill;
And so they gave him, his hand to try,
A hospital patient extremely ill.

Some said that his liver was short of bile,
And some that his heart was over size;
While some kept arguing all the while
He was cram'd with tubercles up to his eyes.

This fine young man, then up stepped he,
And all the doctors made a pause;
Said he,—The man must die, you see,
By the fifty-seventh of Louis' laws.

But, since the case is a desperate one,
To explore his chest it may be well;
For, if he should die and it were not done,
You know the autopsy would not tell.

Then out his stethoscope he took,
And on it placed his curious ear.
Mon Dieu! said he, with a knowing look,
Why here is a sound that's mighty queer!

The bourdonnement is very clear,—
Amphoric buzzing, as I'm alive!
Five doctors took their turn to hear;
Amphoric buzzing said all the five.

There's empyema beyond a doubt;
We'll plunge a trocar in his side.—
The diagnosis was made out;
They tapp'd the patient; so he died.

Now such as hate new-fashioned toys
Began to look extremely glum;
They said that rattles were made for boys,
And vowed that his buzzing was all a hum.

There was an old lady had long been sick,
And what was the matter none did know;
Her pulse was slow, though her tongue was quick.
To her this knowing youth must go.

So there the nice old lady sat,
With phials and boxes all in a row;
She asked the young doctor what he was at
To thump her and tumble her ruffles so.

Now, when the stethoscope came out,
The flies began to buzz and whizz.—
O ho! the matter is clear. No doubt
An aneurism there plainly is.

The bruit de râpe and the bruit de scie,
And the bruit de diable are all combined.
How happy Bouillaud would be
If he a case like this could find!

Now, when the neighboring doctors found
A case so rare had been descried,
They every one her ribs did pound
In squads of twenty; so she died.

Then six young damsels, slight and frail,
Received this kind young doctor's cares;
They all were getting slim and pale,
And short of breath on mounting stairs.

They all made rhymes with "sighs" and
"skies,"
And loathed their puddings and buttered
rolls;
And dieted, much to friends' surprise,
On pickles and pencils, and chalk and
coals.

So fast their little hearts did bound
The frightened insects buzzed the more;
So over all their chests he found
The râle sifflant and râle sonore.

He shook his head.—There's grave disease;
I greatly fear you'll all must die.
A slight post mortem, if you please,
Surviving friends would gratify.

The six young damsels wept aloud;
Which so prevailed on six young men
That each his honest love avowed;
Whereat they all got well again.

This poor young man was all aghast;
The price of stethoscopes came down;
And so he was reduced at last
To practice in a country town.

The doctors being very sore,
A stethoscope they did devise
That had a rammer to clear the bore,
With a knob at the end to kill the flies.

Now, use your ears all you that can,
But don't forget to use your eyes,
Or you may be cheated, like this young man,
By a couple of silly, abnormal flies.

ORIGINAL COMMUNICATIONS.

ON THE PATHOGENESIS OF
YELLOW FEVER.

BY YGNACIO ALVARADO, M.D.,

Delegate from Mexico; Professor of Physiology in the
National School of Medicine (Mexico).

[CONTINUED FROM PAGE 68.]

THE reddish, arborescent appearance of the vessels of the peritoneum, in some cases the fibrillar adhesions between two coils of intestine, and oftener, the presence of a viscid liquid in the peritoneal cavity, constitute the most usual lesions found in the peritoneum. The kidneys are enlarged, hard, and their surface exhibits brown red patches alternating with yellow and naturally colored zones. The hyperæmia sometimes predominates, and the yellowish color in other circumstances. There are very often apoplectic nuclei, and the fatty degeneration, both of its parenchyma and blood-capillaries, are present in many cases; sometimes abrasions of the epithelium have been observed in the pelvis and calices. Fatty degeneration of the heart has been found, the endocardium with whitish patches thicker than the rest of the membrane, these lesions extending to the inner layer of the main arteries, the peri-arterial connective tissue of which is very commonly the site of a sanguineous extravasation all along the arteries; as a consequence, capillary embolism. A greenish or yellowish liquid fills the pericardial cavity, and sometimes whitish patches may be observed on the surface of the membrane. The brain, too, undergoes fatty degeneration, the cavity of the arachnoid containing a great quantity of a reddish serous liquid which infiltrates the cellular tissue, surrounding all the blood-vessels of the pia-mater, which appears as a beautiful, very red net, after the arachnoid has been taken off. Furthermore, the poisoning by phosphoric acid causes the blood to be acid and diffuent, and the same alteration has been found by Griesinger, Davy and La Roche in fatal cases of yellow fever. These are very summarily the lesions in the organs in cases of yellow fever, and when compared with those of phosphoric poisoning one must be im-

pressed with the fact that there is a very essential and tangible feature common to both ailments, viz., a fatty degeneration throughout the body as the last stage of a very acute process of inflammation.

We desire to dwell upon this condition of the organism, because it is the characteristic feature in the pathological anatomy of yellow fever; no particular and unique lesion in special organs, as often happens in other maladies, can be pointed to; the only one, we say again, is a generalized and very severe phlogosis of nearly all the tissues, having a rapid course and ending in fatty degeneration. Such a fact gives a natural and plausible explanation of every symptom of the illness.

We come now to the symptoms, and shall try to show that there are but two natural periods in this illness, such a fact being in accord with our views, namely, one of fermentation, the only one to which the name of yellow fever is properly fitted; and another, which is but the result of lesions arising from the first.

No matter how skilfully the divisions of the course of the malady have been made by other observers, all of them are simply artificial; the main reason of this statement lying in the fact that there are many, many instances in which the different alleged periods of yellow fever are missing. Were they natural periods, none of them would fail to appear in every case.

But among the numberless symptoms of yellow fever there is one that never fails to exist, and this is the changed temperature of the body.

For this reason we have taken the abnormal temperature as the basis for the study of the malady, and have noted the symptoms that accompany each one of the three natural stages of the abnormal heat,—*ascensu*, *fastigium* and *descensu*,—and the facts observed have led us to the conclusion that all the cases of yellow fever must be included within two classes, those in which the malady ends at the *fastigium* of the abnormal heat, and *convalescence* sets in at once, and those in which the illness still goes on through the decline of the abnormal heat.

The symptoms attending the first class are present in every case, and those attending the second are restricted to a certain number of patients. That is, yellow fever has two phases of evolution; the first necessarily exists in all persons attacked by it, the second is present only in some cases.

All patients experiencing only the first, recover, except in case the two periods are indistinct, which occurs in the severest form of the attack. Those who run into the second period have generally a severe attack, proving favorable in some, fatal in others.

Before going into the specifications of the symptoms of each period, let us say that poisoning by lactic acid gives rise to the following symptoms: Sensation of fatigue,* which causes aching all over the body, dizziness, somnolence, and symptoms denoting inflammation of the entire alimentary tract, and in the last stage of the poisoning all those corresponding to the phlogosis of the heart, liver, kidneys, etc.

The following are the symptoms that we have very carefully observed twice a day in about one hundred patients, from 1876 to 1879, at Vera Cruz, while the abnormal heat of the patients was in the ascent and fastigium. For brevity's sake, we shall omit all these details, and also other symptoms which are not closely pertinent to the subject under consideration.

Among the many symptoms attending the invasion of yellow fever, *aching in the limbs and in the arms* has been one of the most prominent, from the very outset of the malady, in 80 per cent. of all patients. This pain has been *spontaneously* compared by the patients themselves with the *sensations experienced after protracted walking*; and as we have been very particular in our queries not being suggestive of the said comparison, we are confident that the character of this aching is certainly that of a tired feeling.

*It must be remembered that lactic acid is normally found in muscles at the time of their contractions, and immediately absorbed by the centripetal vessels; and when it accumulates to such an extent as to make the muscular reaction acid, there always appears then the *feeling of being tired*.

Headache that occurs in 100 per cent. although it has a complex cause,—compression of the cranial nerves by the hyperæmia of their nervous tissue and by that of the adjacent ones, and later on the meningitis,—we are inclined to consider it as having at the earliest period of the malady the same source as the pain in the muscles of the upper and lower extremities, because those causes are not yet present when the pain appears, and because the cause of the headache closely follows the pain of the limbs and arms in 73 per cent. of cases of recovery and in 68 per cent. of fatal cases, both ailments beginning having its maximum and disappearing at the same time, and, furthermore, there is no instance of the muscular pain having appeared alone without being accompanied by the headache.

That particular pain which is located in the muscles of the eye, and increases when the patient is compelled to look upwards, shares the same character. In 88 per cent. of all cases it has been present, and in almost every one, from the earliest period of the illness.

It began at the same time as that in the limb in 88 per cent. of favorable cases, and in 83 per cent. of fatal ones; following its march in 76 per cent. and 56 per cent. respectively. Here are to be applied the same remarks that we have previously made.

Finally, the lumbago—the excruciating pain so frequently present in yellow fever as to deserve to be considered a characteristic symptom—has the same correlation as the *tired feeling* of the limbs.

In 95 per cent. of our patients it has occurred, and in 85 per cent. of them lumbago and pain in the limbs have started at the same time, both following the same course; that is to say, increasing and decreasing together, and disappearing at the same time.

There is, later on, in the course of the illness, hyperæmia and inflammation of the kidneys, and such a thing must account for the absence of the correlation between the two ailments in all cases.

It is to be seen by these abstracts from our observations, that a unique and general circumstance is the starting cause of all the aching present at

the onset of the malady. There are but two general conditions of the body capable of producing these, namely, the abnormal heat and the pathological condition of the blood.

The first cannot be accepted, because although in every instance abnormal temperature and general aching have begun at the same time, they have followed afterwards a diverse course in 69 per cent. of patients who recovered, and in 94 per cent. of those who died. Thus, the correlation of cause to effect is not reasonably presumed here, and consequently the general condition of the blood is to be taken as its cause.

Lactic acid poisoning gives rise to a general phlogosis throughout the digestive canal, and this happens as well in yellow fever from the earliest hours of the malady. In all our cases the gums have been noticed, a very few hours after the beginning of the illness, swollen, more or less reddish, lined with a whitish layer of oidium albicans, and later on, ulcers on the free edges have appeared. The inflammation of the stomach, evinced either by pain, nausea, or vomiting, never failed to exist. Aching of the viscera, increased by pressure on the place, movements of the patients, even by the weight of the bed covers, and by the ingestion of liquids, has been observed in every instance of fatal cases, and in 93 per cent. of patients who recovered. Nausea always attended the illness from its start; and vomiting, either mucous, bilious or black, has been noted in 86 per cent. of cases which recovered, and in 98 per cent. of patients who died.

Dizziness and somnolence, which are among the morbid phenomena accompanying lactic poisoning, are the usual attendants of yellow fever, the former having occurred in all cases and in 90 per cent. of them at the outset of the illness; and the latter, although not so frequent, being present in 53 per cent. of cases of recovery, and in 93 per cent. of patients who die, appearing later than the dizziness. There is no patient, be the character of their disease what it may, either mild, severe, or fatal, who fails to show on the whole, during the ascent and acme of the abnormal heat, besides other symptoms, inflammation of the gums, pharynx, stomach

and intestines, feeling of being tired, headache, pain in the eyes, lumbago, dizziness and somnolence; and it is to be remembered that identical symptoms are noted in cases of lactic acid poisoning. We have stated before that when the abnormal heat has reached its maximum and begins its third stage—the descent—the yellow fever will either be definitely ended, or the symptoms will still continue to go on and some new ones will appear, although there is no abnormal heat; that in the first case there is but one period, the fermentation which always exists in every instance of yellow fever, and in the second case the consecutive period sets forth, which, according to our hypothesis, will be a case of poisoning, either by phosphoglyceric acid, or by acid phosphate of soda.

Do the symptoms observed in the consecutive stage of yellow fever correspond to those of phosphoric poisoning? We are inclined to believe that such is the case, because the latter symptoms are those of an acute inflammation of the digestive tract, liver, kidneys, heart, and in general of all the tissues ending in fatty degeneration; and we have seen that such is the characteristic feature of yellow fever, and shall show besides that the symptoms present during the consecutive stage reveal that although there was already a phlogosis condition of the main organs, this had been aggravated at the time the pathological temperature began to subside, which fact would not have happened were it not for the presence of a new cause. The symptoms revealing an increase of the inflammation of the different parts of the alimentary canal in that circumstance, in our observations have been noticed as follows: recrudescence of redness and swelling of the gums, in 7 per cent. of cases of recovery, and in 52 per cent. of fatal cases; and of the stomach-ache 33 and 79 respectively; bilious vomiting, 53 and 45 per cent. respectively. Furthermore, the black vomit which evinces either ulceration, the advance stage of phlogosis, or decomposition of the blood, or both, as it is the most usual case, has been scarce in patients who recovered, and when it occurred made

its appearance during the acme of the abnormal heat in 20 per cent., and during the descent in 80 per cent.; in fatal cases 40 and 51 per cent., have been respectively the figures. The most repeated and abundant instances of black vomit occurred in 50 per cent. of cases of recovery, and in 58 per cent. of fatal cases, in the said period of descent of the abnormal heat. An increase of the nephritis is noticed by the recrudescence of the renal pain, or by the augmentation of the quantity of albumen in the urine. The former took place during the descent of the abnormal heat in 19 per cent. of patients who recovered, and in 51 per cent. of those who died, and the latter in 45 and 71 per cent. respectively.

Delirium, as one of the ushering-in symptoms of meningo-encephalitis, has failed to be present during the illness in 72 per cent. of successful cases, and existed in 93 per cent. of fatal cases; and when it so happens, its increase took place while the heat went on subsiding, in 33 and 86 per cent. respectively. Coma, that attends an advanced degree of phosphoric poisoning, was in yellow fever of a very rare occurrence in mild cases, and in fatal ones, always appeared, as the rule, in 0.09 excepted, while the heat was decreasing.

We regret not to have always paid attention to the symptoms revealing the angio-cardiac phlogosis,—pain and murmur,—and in the cases we did, (16) its maximum accompanied the maximum of the cerebral and nephritic complaints.

It is to be seen, therefore, by the foregoing figures, that in severe and fatal cases of yellow fever, the phlegmatis of the diverse organs undergo a recrudescence, and some others begin to be inflamed, after the abnormal heat has begun to subside, which fact can be ascribed but to the presence of a new agent acting like lactic acid. Such a condition can be fulfilled but by a phosphoric compound.

If our opinions are correct, then the experimental poisoning in animals, by lactic and phosphoglyceric acid, will reproduce to a certain extent the main symptoms and lesions accompanying yellow fever. With this object in view, we

undertook a series of systematic experiments, which personal circumstances compelled us soon to give up. Although very incomplete, some of them are appended here, which will add some more probabilities to the proposed theory.

We made in some dogs hypodermic injections of two grains of phosphoglyceric acid in one gramme of water, without noticing any abnormal phenomena. In some others an intravenous injection of 20 centigrammes of lecythine, prepared from the yolk of eggs, dissolved in 1.50 grammes of sulphuric ether; and in some others the quantity of lecythine being ten drops to ten drops of ether, and in both cases with negative results; except in the latter cases, in which an abundant salivation and lachrymation immediately ensued upon the injection. In another dog, 1 gramme of lactic acid, diluted with 1 gramme of water, was followed by no particular phenomenon during the eight subsequent days. We then have injected into the jugular vein of a small-sized dog 0.50 of lecythine, and immediately after 0.50 of lactic acid. Up to 9 P.M.—the injection was made at noon—no particular symptoms were observed, and at about 3 A.M. on the following day the dog was dead.

At noon a post-mortem examination showed the following—there was on the ground a natural stool; no vomited matter. Cadaveric rigidity very exaggerated; liver hyperæmic, natural consistency; red-brown hue; volume a little increased; stomach completely emptied, its mucous membrane swollen and of a dark, rosy color; red ecchymotic patches in the duodenum, which was filled with yellow bile; and in the rest of the small intestines, yellow and abundant bile also, either alone or coloring an abundant mucous matter. Kidneys congested, bladder emptied, and its mucous membrane dry. Heart of natural size, and its four cavities filled with a very dark blood, the consistency of which was a little greater than, but closely resembling, gummy syrup; no signs of endocarditis; reddish-yellow and swollen patch in the transverse portion of the aortic arch; nothing particular in the carotids. Brain very much congested; its pia

mater of a very vivid red hue, and all its capillary vessels enlarged and very numerous; nothing particular in the arachnoid. It is clear that death was a consequence of the conjoint presence of lecythine and lactic acid, as other experiments have shown that neither of them, when alone, have killed the animal; which fact supports, to a certain extent, our hypothesis that the lesions at the post-mortem examination were of a phlegmasic character, as is also clear as regards the mucous membrane of the stomach, the small intestines and a portion of the aorta, and are very presumable for the brain, kidneys and liver. As in yellow fever, the urine was suppressed, the blood has the same aspect, and the cadaveric rigidity was as marked as it is in vomito negro.

We, having been led to think that lecythine extracted from the blood would be better suited for the purpose than that from eggs, made the following experiment:

Rabbit, of large size, respiration, pulse and pupil normal, rectal temperature 40.1° (Cent.), gums of a vivid rosy color, palpebral conjunctiva red, ocular conjunctiva normal.

August 29th, 12.30 P. M.—hypodermic injection in the right side of 0.004 of sheep's blood lecythine, dissolved in 1.5 of sulphuric ether.

12.35—temperature 40° , slight anæsthesia; respiration and pulse normal; pupil enlarged.

12.45—temperature 39.7° , profound anæsthesia; pupil very much enlarged, pulse and respiration normal.

12.55—temperature 39° , anæsthesia the same.

1.5—temperature 39° , pupil smaller.

1.15—temperature 38.7° , slight anæsthesia, spontaneous movements; he tries successfully to walk; pupil the same.

2.15—temperature 37.6° , anæsthesia disappeared; pupil, pulse and respiration normal; appears depressed.

3.30—temperature 37.1° .

5.45—same.

8.15—temperature 39.1° , gums of a vivid rosy color.

August 30th, 8.30 A. M., temperature 38.1° , ocular conjunctiva yellowish; gums redder than yesterday; depressed.

8.30 P. M.—temperature 37.4° , increased depression.

August 31st, 7 A. M.—The rabbit lies dead on his right side, cadaveric rigidity (opisthotonos) very marked. Around the puncture made with the syringe, the subcutaneous cellular tissue was red, and a greenish liquid permeated it to a great extent around. Mesentery red and the vessels filled with blood, and in some places small ecchymoses appeared. Stomach considerably enlarged by very dry food, and so was the mucous membrane of the viscera, from which large portions of its epithelium can be washed off by a light stream of water; no change in the color of the said mucous membrane, except at the level of its small curvature, where there is a patch of red hue; nothing particular in the intestines. Liver very congested, showing very numerous red dots; its consistence and size about normal; the gall-bladder very much distended by bile; kidneys somewhat enlarged and dark; the bladder contained 45 grammes of urine, which, after being filtered, was transparent, greenish, and the nitric acid test revealed the presence of a small quantity of bile, and a great deal of albumen. Lungs of a vivid rosy color. In the pericardium there was one gramme of a greenish liquid, in which no trace of bile could be detected by nitric acid. Brain very much congested, and so was the pia mater in a greater degree, the capillaries of which appeared very red and numerous, owing to being filled with blood.

The above experiments show that after introduction of lecythine into the blood, the temperature fell, jaundice and albuminuria set in, inflammation of the stomach, peritoneum, liver, and pia mater appeared in a very short time, and ecchymoses are produced, as happens in the consecutive stage of yellow fever.

In summing up, we believe the deduction is warranted from all that has been stated in this paper, that there is circumstantial evidence in favor of the opinion proffered by us, namely: That during the ascent and acme of the abnormal heat in yellow fever, a true fermentation takes place through the presence of a micro-organism in the blood,

which takes the oxygen of the sugar for its own nourishment, and the other elements of the sugar are turned into lactic acid, and hence the symptoms attending this first stage of yellow fever. That in case the fermentation has not attained a certain degree, the malady will have favorable issue at the end of the fastigium of the abnormal heat.

That in the contrary case, the lactic acid will cause the phosphoglyceric acid to be set free from the lecythine of the blood, and there will be then a *consecutive* period accompanied by all the symptoms attending phosphoric acid poisoning; and finally, that when death ensues, the cadaveric lesions will be those caused by fatal intoxication with phosphoric acid, viz: generalized phlogosis throughout the body, causing fatty degeneration of the viscera.

We confidently hope that persons interested in the advancement of science, and conversant with practical chemistry, will take this matter into their hands, and, by skilful analysis of the blood, arrive at data by which they will be able either to reverse or affirm our opinion.

ABSTRACT OF PRESIDENT'S ADDRESS READY BEFORE THE AMERICAN PUBLIC HEALTH ASSOCIATION.

BY G. M. STERNBERG, M D.,

Major and Surgeon, U. S. A.

[The following points of interest and importance were brought out by Dr. Sternberg last week in his Address as President of the American Public Health Association.]

THE creation of a central health authority, under the direction of a cabinet officer, and having powers somewhat equivalent to those of the Commissioners of Education and Agriculture is desirable. This central authority should be one man, and not a board composed of members from different sections of the country. The latter, as was shown by the defunct National Board of Health, is cumbersome; and, being assembled only at long intervals, cannot act as promptly or efficiently as a single responsible head located at Washington. A board composed of the chief medical officers of the army, navy, and marine hospital services

would be little better than the board which has been tried and failed to succeed.

The "Bureau of Public Health" should have a commissioner at its head and the necessary secretaries and clerical force to make it efficient. It should control a well-equipped laboratory, in which bacteriologists, chemists, and sanitary engineers should be engaged in the experimental investigation of unsettled sanitary problems: such as the natural history of disease-germs; the best methods of destroying them; protective inoculations against infectious diseases; the disposal of sewage; domestic sanitation; food-adulteration; and a number of other questions of similar importance.

While the good to be accomplished would depend largely upon the fitness of the man to be selected, we may trust the good judgment of the Chief Executive to make the proper appointment.

In connection with the Bureau of Public Health, there should be an Advisory Health Board, to be composed of the Surgeons-General of the Army, Navy, and Marine Hospital service and the Presidents of State Boards of Health. To this board could be referred questions for consideration, or it could suggest new measures and changes in regulations.

The question whether it is practicable to make a city, which lies within the area subject to invasion, proof against epidemics of yellow fever and cholera is of great importance. The prevailing opinion of English sanitarians is that it is practicable, and that quarantine restrictions are unnecessary. At the International Sanitary Conference of Rome, the English delegate exhibited statistics to show that, in spite of the free and unrestricted commercial intercourse between Great Britain and India, cholera did not gain entrance into the former on account of the sanitary condition of the seaports. The method adopted in England is stated by Dr. Thorne to be as follows: The customs officers board arriving vessels, and at once communicate to the sanitary authority the occurrence of any case of cholera, choleraic diarrhoea, or suspected cholera. A vessel so infected is detained until the medical

officer has examined the crew and passengers. Those sick are removed to the port-hospital, and suspected cases are detained for a period not exceeding two days. The sick are isolated, but the healthy are allowed to proceed; but their names and destinations are at once notified to the sanitary authorities at their points of destination. The sanitary authorities throughout the kingdom are constantly on the watch and active in promoting the sanitary condition of the districts under their charge. To this the exemption of England from cholera is attributed by Dr. Thorne.

In this country it would not be prudent to adopt the English method at present. The system in use at the port of New Orleans is in accord with modern sanitary principles.

The practice of taxing commerce for the support of quarantine establishments is wrong in principle and unjust to those who are required to bear the burden. The people who are protected should pay the cost of protection, and quarantine establishments should be supported at the expense of the National Government or of the States in which seaports are located, and not by a tax upon the shipping entering these ports.

The following illustration of the evils arising from the present system of supporting quarantine establishments was cited. It occurred at the port of New York. The speaker said: "With the deputy health officer, who boarded our ship, came a man with a jug. I was informed by one of the officers of the ship that he was to disinfect the vessel. Being somewhat curious to know the method of disinfection employed, I asked the ship's surgeon to go with me to inspect, when, after a detention of less than one hour, we had started from the quarantine station for our wharf. We found that the man with the jug had lowered a bucket by means of a rope through one of the hatches between decks. Upon pulling up this bucket, I found that it contained two or three pounds of some powder which had been wet; probably with an acid solution, and which gave off an odor of chlorine. No doubt, when first lowered between decks, there had been a

considerable evolution of chlorine; but in the vast space to be disinfected it was so diluted that, at the end of an hour, I did not detect the odor of chlorine-gas when I lifted the hatch, and it was only by approaching my nose to the bucket that I was able to ascertain what disinfectant had been used. The most curious part of the story is that I was informed that the bucket had been lowered between decks to disinfect a quantity of hides which were stored in the hold. What was the object of this 'disinfection?' Evidently not to disinfect; for no one at the present day would think of maintaining that the hides in the hold had been disinfected by the procedure of the man with the jug."

We should set an example to other nations by an enlightened policy, which will not only redound to our credit, but will directly benefit our languishing commerce.

A SERIOUS DEFECT IN THERAPEUTIC LITERATURE.*

BY MARY WILLITS, A.M., M.D.,

Philadelphia, Penn.

I WISH to call the attention of physicians to the necessity of being more explicit in their writings in regard to the administration of drugs. Holding a position in the Woman's Medical College of Pennsylvania brings me into constant contact with students and recent graduates, and I hear many complaints of the carelessness, or thoughtlessness, of prominent men in reporting cases either in journals or societies. When speaking of the treatment, the name of the drug used is given, rarely anything more; nothing in regard to its dose, frequency of administration, or length of time it should be continued. This applies not only to a drug which has been in use for some time, and with the action of which we are supposed to be acquainted, but even to a new remedy with which many of us are not familiar. We have never used it or known of a case where it has been used. We are interested in its effects in the case reported; but are entirely at a loss

* Read before the Philadelphia Clinical Society, September 23, 1887.

as to how to administer it if we should wish to do so.

Often we are left in doubt regarding the form of the drug, whether liquid or solid; if the latter, whether or not it is soluble; we have no idea how to make the dose palatable, or whether it is already so; and all must admit that this is an important factor in prescribing, especially when practicing among children. Take Salol, for example, the drug of which so much has been written during the summer, how many of us have a definite idea in regard to the best method of administering it? In one journal, where I saw an article relating to it, it was recommended in pyelitis and cystitis, also in old ulcers of the leg, applied externally in the latter instance. Some further remarks were made concerning the remedy and then, "It has also been employed in eczema, pruritus, pediculi, scabies, etc.," presumably an external application is to be made for these last named affections, but we are not told so; nor are we told anything in regard to the strength or frequency of the application, if one is to be made, nor what its effects may be; all most important items when we know nothing of the action of a remedy.

The same may be said of numerous other drugs, which are continually being brought to notice; many of them having but a brief career before they sink into oblivion; very few standing the test of time. May not this quick sinking into obscurity, on the part of such a number, be due to this omission on the part of those who report the use of them?

It has not been many years since Quebracho was a new remedy and lauded in high terms for asthma and bronchial affections; but some time elapsed before we were able to ascertain how it was prepared, what amount or with what frequency it should be administered.

Paraldehyde, antipyrin, cocaine and others, which we are now using with so much benefit in many instances, in their early days were subjected to the same unsatisfactory notice.

In the case of old drugs the omission is almost equally grave; every one has his own method of administration. After some years of experience with

remedies, he learns that certain doses and certain preparations act best for him, and he employs them accordingly, giving the dose as frequently as he has found necessary. He reports an interesting case in which he speaks of the efficacy of a certain drug. Some physician reads the article, has a similar case, uses the same remedy, but not in the same manner, nor the same preparations; the result is unsatisfactory, and the remedy is discontinued, while the author of the article is condemned, either as having misrepresented the nature of the disease, or as having exaggerated the efficacy of the drug. In some instances a drug should be given until a certain effect is produced, regardless of quantity; the reporter of a case should be careful to state whether he prescribed in that way, or whether a dose, as specified by our writers on therapeutics, was given.

In a well known medical journal a few weeks back, there is a note from a "constant reader," who asks that an article may be written on hypodermic medication, telling *how* to prepare drugs for administration by that method, adding that the dose is so rarely given when the remedy is to be administered hypodermically. I think we can make the assertion more sweeping, and say that it is rarely given at all, for administration in any form, or by any method.

Frequently, the writer will say that a "full dose" of some drug was given; in consulting works on *Materia Medica*, we find that different authorities on the subject differ in regard to the dose in many cases, so that a "full dose" conveys but little meaning to us. Then, too, there are persons who are very susceptible to medicine and can take but small doses, large ones affecting them most unpleasantly. Take morphine or atropine, we know that most unpleasant results may occur if we give a "full dose" of either to certain persons, and without having some previous knowledge of our patient as to whether or not there may be an idiosyncrasy for certain drugs, it is necessary for care to be exercised in the administration of any powerful remedy.

A frequent error in medical works, which are used as books of reference

and text-books for students, is that under the head of "Treatment" of disease, will be a long list of remedies which have proved efficacious in the hands of one or more practitioners who have used them; perhaps one drug has proved beneficial at one stage of the disease, another at another stage; nothing is said in regard to that; they are all put down in one long list, no mention being made of the dose or preparation which was used. As each drug may have several different preparations, and each of these several different doses, the recent graduate cannot help but grow perplexed and bewildered as he attempts to study up a case, and either wish that our cases were more like those reported, or that books were written for young practitioners instead of for those who have had years of experience in the profession.

He resolves that, by and by, he will write a book which will settle many mooted points and be a comfort to recent graduates, for it shall contain all possible information in regard to the use of the any and every drug to be found in, or out of, the *Pharmacopœia*; but, as time passes on, he gains experience and confidence in himself, and by the time he begins to write he has forgotten these early annoyances, and follows in the footsteps of his predecessors.

The same mistake is made by writers on electro-therapeutics. We read an article extolling the merits of this method of treatment for certain maladies, but are frequently left in total ignorance as to the kind of current—Galvanic or Faradic—its strength, length or frequency of sésances, or on what parts of the body the electrodes are to be applied. Not long ago I saw an article in regard to the use of electricity. A number of cases were cited, in which it had proved very beneficial; among them was mentioned a case of chronic ulcer of the tongue; immediately following that, indeed in the same paragraph, its efficacy in a case of leg ulcer was spoken of—nothing was said in regard to its manner of application in either case, leaving us to infer that the electrodes were placed upon the same parts of the body for these widely separated troubles, and that the sésances

were of the same frequency and duration.

When speaking of treatment by this method, the amount used at a sésance should be specified, either as measured by the galvanometre or milliampère metre; or if no notice were taken of the amount, as measured by one of these, and a current regulated by the toleration of the patient was used, let us be told whether it were as strong as could be endured, or whether merely a pleasant sensation of warmth was produced.

There are several reasons for this too frequent omission. The most prominent is that when speaking of remedies which have been in use for some time, the physician considers it useless to mention a subject with which all should be familiar, forgetting that we know nothing about the manner in which the drug was administered in that particular case, and not realizing that therein may have been the secret of his success. Some persons get into a careless habit of thinking and writing, doing both hurriedly, leaving out important items when reporting cases, doses among the rest. At times it is only an abstract of the original article that we see; the person making said abstract not going into details at all, merely stating that a certain remedy has been used in a certain disease, occasionally neglecting to inform us where we may find the original article, which, perhaps, gives all the important data.

If physicians would only realize of how much more importance their articles would be if this omission were corrected, I think they would be more particular when reporting cases. To those who have had great experience in the use of drugs and electricity, this neglect does not make so much difference. Experience has taught them, to a certain extent, how to prescribe, though even in these cases it would be much more convenient if the writer would state his peculiar method.

The students and recent graduates, who should be especially benefited by these reports, gain but little from them; for it takes time and experience to learn to reason calmly concerning the manner of administering medicine, and a person who has just left college has not acquired either.

HOSPITAL NOTES.

UNIVERSITY OF THE CITY OF
NEW YORK.

SERVICE OF WESLEY M. CARPENTER, M. D.,
Clinical Professor of Medicine in the University of
the City of New York.

CLINICAL REMARKS ON WASHING OUT THE
STOMACH, IN DILATED STOMACH.

GENTLEMEN: We have before us to-day a man somewhat over fifty years of age, who for some time has vomited almost daily large quantities of hot, acrid fluid. He is suffering from what has been called *pyrosis*, and has tried a great variety of treatment without permanent benefit. We propose to give him an opportunity to receive the benefit which may follow washing out his stomach, what the French call *lavage*. For this purpose we might use the stomach-pump, but the method has been very much simplified by the use of a soft rubber tube, from three-eighths to half an inch in diameter, and about two feet and a half in length. At the distal extremity, near the tip, are two openings, one upon each side, for the entrance of the fluid into the stomach. The other end is joined by the intervention of a short glass tube to another rubber tube, about two feet long, to which is attached a funnel for the reception of the fluid to be injected. The connecting piece of glass tube is used for convenience, as through it we can see whether the fluid is passing in freely. The funnel in this case is made of hard rubber, and is less likely to break than if made of brittle material. But the glass funnel has the advantage that the operator can see how much fluid it contains without looking over the top of it.

Introduction of the Tube.—Let the patient sit squarely in front of you. At one side place a vessel for the reception of the ejected fluid. Upon a table at your right place the fluid to be thrown into the stomach. Then direct the patient to open his mouth, introduce your finger and depress his tongue, and with the other hand introduce the tube, which you have previously lubricated with vaseline, in the same way you would introduce a flexible catheter into the male bladder.

Occasionally you will meet with cases in which the throat is so sensitive that you will be obliged, in order to carry out this procedure, to resort to certain measures to allay that irritability. These, however, are not very common, and we will speak of them later. Generally the patient will hesitate at first, and he may offer some resistance, but on assuring him that he will receive no harm you will be able to introduce the tube without serious difficulty. As in the introduction of the catheter into the male urethra, you will at places meet with resistance as if a stricture had been encountered, so in passing the tube through the oesophagus, the muscles will here and there contract and offer resistance. But, when the tube is thus arrested, wait a moment, give the patient a word of assurance, tell him to swallow, and you will find that the instrument will soon pass along for considerable distance before it is again grasped by the muscles. You will hereafter learn, if you have not already done so, that frequently as the catheter enters the urethra resistance is offered, and you have to wait a moment—never hurry, never push—for the weight of the silver catheter to gently overcome the temporary obstacle and pass on into the bladder. In this respect the analogy between the introduction of the tube into the stomach and into the bladder is quite marked. You may be detained once or twice, or three or four times, before the instrument reaches the stomach. If you should meet with absolute failure in the introduction of the tube, remember that it is one of those accidents to which we are all liable, and be not discouraged. If the failure be due to any error on your part the lesson will be one which you will not readily forget. He who fails to answer a question at his final examination for his degree will remember that question even though he forget all the others.

You may find some of your patients, in family practice, less submissive to treatment of this kind than are others. As some people will go abroad, spend hundreds of dollars at watering places, and do things to which they would not submit should their family physician suggest them, the very fact of their

being away from home, of paying out money for board and professional advice, for railroad fare, for baths, and so on, will frequently induce them to yield to a plan of treatment against which they would rebel if it were advised at home. [The stomach tube was then introduced.]

Our patient, as you have seen, gagged and offered some resistance to the passage of the tube down his œsophagus; the muscles of the pharynx were unusually resistant, but by gentleness, and waiting a moment here and there for the spasm of the muscles to yield, we were able to pass the tube into his stomach. But he found the sensation so disagreeable, and the desire to vomit so strong, that he could not retain the tube sufficiently long to allow us to pour the water into his stomach and wash it out. But he assures you that the operation was not painful, and it is not unlikely that he will submit to it again at our next clinic. His tongue and the muscles of deglutition were exceedingly resistant. There are persons in whom the tongue drops with the slightest amount of pressure, and you will be able to introduce the tube with scarcely any obstruction.

To complete the operation, having introduced the tube into the stomach, pour warm water through this funnel, which should be elevated and kept half or two-thirds full, in order that the current may be continuous. The quantity of water required will vary from a pint to a quart; seldom more than a quart. When the required quantity has entered the stomach you can compress the soft tube between the thumb and finger just at the attachment to the funnel, then lower the funnel to a point below the level of the stomach, and let the fluid run out by siphon action.

A few words with regard to the indications for washing out the stomach. For the most part it is used in cases of chronic gastric catarrh, with free secretion of mucus, especially with acid eructations, a burning sensation and the symptoms of chronic dyspepsia. It is also applicable in cases of dilatation of the stomach. Dilatation sometimes exists to a marked extent, the patient will take food and drink, which will be only partially digested, and it remains

in the stomach and undergoes fermentation. These patients often ingest things which tend to combat the process of fermentation. For instance, I know one patient who at one time ate large quantities of sweet flag, and recently he has taken to eating large quantities of cloves; in that way he combats the fermentative process to such an extent that he is able to retain the contents of his stomach two or three days. Then he has a great time vomiting offensive material. You will find that such patients will respond to this mode of treatment.

The washing may be repeated daily, but in most cases it will not be required oftener than every third day or once a week. The fluid used may be simple warm water, or it may be medicated with alkalies or antiseptics.

The washing should be done when the stomach is empty, either before meals or sometime after, and first with warm water, to be followed by half a pint of medicated fluid, or less, which is allowed to remain if medicated fluid is needed.

If the patient's throat becomes so rebellious that you cannot get the tube down, and you think the case is one that renders washing out desirable, there are certain things which you can do to overcome the sensitiveness. The bromides may be administered internally, as for preparatory treatment, and they may also be used locally in solution with a hand atomizer. The throat may be sprayed with a two or four per cent. solution of the hydrochlorate of cocaine, for the same purpose, about fifteen minutes before the attempt is made to introduce the tube. Some patients, however, are afraid of cocaine, having heard that it may be injurious. There is occasionally a case in which unpleasant symptoms, such as syncope and apparent cessation of the heart's action arise from the influence of cocaine when administered in the throat or anywhere about the neck and face. Why this occurs has not yet been satisfactorily explained, but the fact should interest us; we can theorize concerning it at our leisure. I have recently encountered a case in which the spray of cocaine in the throat and nasal passages is invariably followed

by slight nausea which lasts for some time.

The ether spray has been suggested, but it may cause undue irritation, and give rise to an amount of mucus secretion which would constitute a disagreeable complication.

There are other anaesthetics which might be used, but general anaesthesia should be avoided. The introduction of the tube does not hurt the patient. It is the local irritability which you wish to allay by the use of the local anaesthetics mentioned.

Is it allowable to wash out the stomach in cases of gastric ulcer? There is considerable difference of opinion on this question. Some maintain that, if the patient submits kindly to the operation, and it be done carefully, and if the tube can be introduced without difficulty, and the stomach be washed out gently with warm water properly medicated, the procedure may be admissible. But under other circumstances the treatment is considered of doubtful propriety.

In cases of carcinoma of the stomach, this method may give the patient temporary relief, if there is vomiting and hypersecretion of gastric fluids. But the conditions governing its use in cases of gastric ulcer should be regarded in connection with cancer of the stomach.

The vomiting of phthisis may be due to causes other than those referable to the stomach, but when dependent upon disorder of the stomach itself, marked relief may be afforded the patient, sometimes, by employing this method of treatment.

Caution, however, must be exercised in its application in cases in which the pulmonary disease is very far advanced.

Great care, also, should be exercised in employing this method, if indeed it be resorted to at all, in patients above sixty years of age. If there be evidence of extensive arterial degeneration even at a much younger period in life, it will probably be the safer course not to adopt the method. Certainly you would not resort to it, unless you are well assured that, either naturally or by reason of preparatory treatment, the procedure can be carried in effect

with only a very moderate amount of resistance and "gagging" on the part of your patient. The occurrence of central hemorrhage during the operation would be an exceedingly disagreeable complication.

TRANSLATIONS.

THE USE OF LARD IN PHTHISIS PULMONALIS.—A Russian physician treats phthisis by administering lard boiled in milk. The results are "very encouraging," consisting of "increase in weight, diminution of the cough, loosening of the expectoration and return of appetite." All the observations were made upon patients in the first stages.

A NEW PEPTONE FOR SUBCUTANEOUS USE.—The unsatisfactory nature of the trials hitherto made, with hypodermic injections of medicinal agents diffused through peptones, has prompted Raynaud to seek for a better vehicle in a peptone prepared from the albumen of the blood.

The method of preparation is as follows:

Pure blood-albumen,.....	grm. 5.
Pepsine (extractive dialysis),....	0.75
Distilled water,.....	75.
Pure hydrochloric acid.....	gtt. xix

Digest for three days at a steady temperature of plus 46° (Cent.)

At the end of this time the digested liquid is clear, and not affected by ferrocyanide and acetic acid.

Analysis shows the liquid to contain:

Insoluble residue remaining on the filter after neutralization, . .	grm. 0.490
Syntonine,.....	0.125
Dry peptone,.....	3.940
Salts, separated by dialysation,....	0.96

After purification by dialysis, concentration and evaporation by gentle heat upon plates of glass, this peptone presents itself under the form of fine light scales, hygrometric, brilliant, resembling the fine scale pepsins. Dissolved in distilled water and precipitated by alcohol, we obtain a very white powder, indicating a sufficiently great purity. For hypodermic use, it advantageously replaces the fibrin peptones, because we inject into the circulation an albuminoid whose composition most nearly approaches that of the blood itself.—*Bul. Gén. de Thérap.*

PHILADELPHIA .
MEDICAL TIMES.

PHILADELPHIA, NOV. 15, 1887.

EDITORIAL.

THE RELATIONS OF PRACTICAL
 PHARMACY TO MEDICINE.

THE encroachments of the pharmacist upon the province which the physician regards as exclusively his own constitute a chronic source of complaint upon the part of the latter. And as with each succeeding year the difficulty becomes more pronounced, the necessity for a remedy becomes more pressing.

On the one hand, the demands upon the physician are increasing. The universality of education renders the public more exacting; and while the schools are lengthening their terms of study and multiplying their requirements, the competition is growing sharper; so that the expense of both time and money to him who expects to hold his own in the struggle for professional existence is vastly increased.

The resort to Europe, for the finishing touches to the medical education, has become so much a matter of course, that the physician who has not spent at least a season in Vienna or Paris is as rare as the Frenchman who has not the ribbon of the Legion of Honor. On the other hand, the sources of professional income are becoming yearly scantier. The specialists have plundered their mother until she stands nearly naked. The gynecologist, laryngologist, rhinologist, ophthalmologist, aurist, neurologist, the expert in diseases of the chest, of the rectum and of the genito-urinary system, bid openly for every patient who can afford to pay large fees. The druggist takes the cases of venereal disease, the dressing of wounds and the treat-

ment of all minor ailments which do not confine the patient to the house. The balance goes mainly to the hospitals and dispensaries. We dread to definitely state just what is left for the family physician, lest somebody will seize upon it as a new specialty, and leave us nothing!

With such sharp competition, it is not to be wondered at that the very large slice cut from our loaf by the pharmacist should excite our ire. The specialist is one of us; but the apothecary is like an assistant, who, growing big, usurps the dignities and embezzles the emoluments of his employer.

But let us look at it from the standpoint of this aspiring caste. They are not professional in their objects or in their impulses. The medical profession, often as individuals fall below it, has still a standard above that of trade. As Da Costa so aptly pointed out in his opening address, we cultivate with ardor the sciences which aim at destroying our professional existence. No physician can seek to retain his own discoveries for his pecuniary benefit, and retain his position among his fellows.

The druggist is simply a merchant with goods to sell. His standard is commercial, not professional. He must be governed by the laws of trade; must buy cheap and sell dear; must advertise his wares; must use the same means as his competitors to attract customers; must cater to their needs, and consult their wishes. Hence, if his neighbor provides soda-water, or postage stamps, segars, and cough drops, or if he dresses wounds, treat gonorrhœa, and prescribe across the counter, he must do the same, or go out of business.

Unless the retail druggists as a body decline to prescribe, it is scarcely possible for any of them to do so. And such concerted action as would result in relinquishing a profitable branch of trade

will never be taken. Nor can the medical profession compel it. Some years ago, the Medico-Legal Society of this city undertook to form a league against the encroachments of the druggists, but the scheme failed; principally through the well-meant, but mistaken, zeal of one of the members.

We doubt whether the difficulty could be remedied by legal enactment. So many occasions arise in which hardship would ensue if druggists were not allowed to dispense drugs without a prescription, that the law would fail from its complexity.

The fact then remains that the druggist is our most dangerous competitor. He is under no professional restraint; he has an insight into our methods; hears of the results of our treatment; and thinks that when he can select the best out of twenty physicians' prescriptions, he knows more than nineteen of them.

His good opinion of himself is enhanced by the support he receives from influential quarters. His periodicals are crowded with advertisements from rich and powerful firms who never enter the medical journals. Others advertise in the latter until they can claim the endorsement of the profession for their nostrums, and then transfer their patronage to the journals of the drug trade, or to the general public.

How can the druggist be blamed for having a good opinion of himself, when well-known houses plaster their journals with such matter as the following:

"This firm announces that they will upon application send to any druggist a circular which will instruct him in the art of fitting glasses to ailing eyes, so that he can do so without the interposition of the physician."

Think of it! The cross-roads druggist, who writes to his journal to know what "ad" means in a prescription, is

to correct the defects in a piece of the human mechanism so delicate and so complicated that some of the best men in the profession devote their lives to its study, exclusively!

It is curious that the professional opticians do not look upon the fitting of glasses as so simple a matter. We have made inquiries of several, and all declined to have anything to do with it; saying that they preferred to leave the responsibility with the physicians.

We asked a number of practising physicians, but while each acknowledged doing a little gynecology, etc., they refused to meddle with the eye.

But the druggist, knowing little or nothing of the difficulties of the subject, fails to see in such an advertisement the greed which seeks for a few dollars at the expense of doing irreparable injury to some unfortunate's visual organs. The druggist sees only another proof of his own capability.

Is there then, no remedy for this evil? We believe that there is; that a method can be put in operation which will restore our lost ground, and put the profession on a firmer footing than ever before.

This method is to go back a few steps, and reunite the profession to the business. When the young physician receives his diploma, instead of sitting down in his office, or studying methods of so advertising himself as to keep within the letter of the law, although breaking it in spirit, let him set up a pharmacy.

The advantages are as follows: The experience he will gain, in handling drugs, is of the greatest value. He will profit by this through his whole future career.

The experience he will obtain as a physician, from one year in a drug store, will be more than he would receive from five years of practice.

He will have the advantage of studying the methods and witnessing the results of the practice of other physicians; a privilege more valuable to him than it now is to the druggist. He will build up in one year a larger practice than by five years of ordinary work.

The druggist will then be confronted by a competitor better equipped than himself. He will be forced out of business, or into regular medicine. Or else, *he* will clamor for laws restraining each party to its proper sphere.

That this is a natural and effectual remedy is shown by the remarkable success which have been obtained by the Provident Dispensaries of London; which, although discountenanced by the profession, have succeeded in winning its approbation; because they were in accord with the actual needs of both profession and people. W. F. W.

ABRUS PRECATORIUS.

DR. Sidney Martin, in a communication to the recent Congress on the proteids of the seeds of *Abrus Precatorius* (Jequirity), reaffirms his former statement that the active principles in the seeds consisted of an albumose and a globulin. The results of his investigation may be summarized as follows:

1. *Abrus-albumose* is much less active than the *abrus-globulin*. In the eye it does not always produce conjunctivitis; subcutaneously, it does not always produce death.

2. *Abrus-globulin* is very toxic. Instilled into the eye it produces "*abrus-ophthalmia*," which in most cases ends in recovery, though in some cases the animal (rabbit) dies in a few days (a fact previously noted by Klein.)*

If *abrus-globulin* be placed in a solid form under the eye-lid, it produces in-

tense conjunctivitis with local ecchymoses.

Hypodermically, it always kills the animal even when given in small doses; and its toxicity is proportioned to the dose. It produces great local congestion or œdema, with, in the majority of cases, ecchymoses, sometimes punctiform, sometimes diffuse. The post-mortem signs agree with those described by Warder and Waddell.

The activity of *abrus-globulin* is at once and permanently destroyed by heating its solution in saline up to 75° (C.). The heating was performed gradually; the test tube containing the solution of globulin being placed in a flask of cold water, which was beaked; directly the temperature rose to 75° (C.), or any other temperature that was desired, the test tube was removed and rapidly cooled under the tap. Heating in the manner described up to 70° (C.) did not destroy the activity of the globulin; nor was this affected by any lower temperature. In ten per cent. sodium chloride solution, its globulin coagulated between 66° and 73° (C.).† He found that the toxicity of the globulin is destroyed at this temperature, and was led to point out that the activity of the poison seemed to be intimately connected with the uncoagulated condition of the proteid. Full details of the experiments, with further remarks on the albumose, and the action of these proteids on protoplasm will be shortly published by Dr. Norris Wolfenden and the author of this paper. F. W.

"A STRANGE HOMICIDE CASE" was the title of a paper read before the Medical Jurisprudence Society of Philadelphia, by Dr. John T. Eskridge, of Colorado Springs, which led to the usual discussion as to medical and moral or legal responsibility.

* Micro-Organisms and Diseases, 1884.

† Proc. Royal Society, Vol. 42, p. 333.

NOTES FROM SPECIAL CORRESPONDENTS.

BERLIN.

EXTIRPATION OF THE UTERUS FOR CANCER
—CÆSARIAN SECTION—ASSOCIATION OF
GERMAN NATURALISTS AND PHYSICIANS
—THE DEPENDENCE OF SUMMER DIARRHEA UPON ELEVATED TEMPERATURE
AND BAD HYGIENE—THE CLIMATE OF
AFRICA.

GERMAN gynecologists have been of late very busy with the statistics of the operation for the complete removal of the uterus for carcinoma. Material is now on hand to determine if the operation be a justifiable one. The testimony is to the effect that it is; and many consider it superior to any other treatment of the cancerous uterus. Up to the close of the year 1886, 811 cases have been collected, with 47 deaths, or 15.1 per cent. With increased experience the mortality is gradually decreasing, and we may expect it to continue to do so. As to immediate mortality, the operation shows better results now than the removal of the breast for cancer. The patients are usually prepared for the operation with an antiseptic vaginal injection. One stroke of the knife frequently suffices to open the pouch of Douglas, and display to view the posterior fornix, after which the cutting is done cautiously, paring with the finger nail. Warm water is kept running over the surface and no sponges are used. The peritoneum is opened at one side and one finger is passed in, which frees the broad ligament from the uterus. The ligament is then in like manner freed on the other side, up to which time the hemorrhage is very inconsiderable. The bladder is then freed, which is done with the forceps and the knife. The cut borders of the vagina are then united to the peritoneum just as was done the other side. It seems to be of little import whether the uterus is removed through an incision made posterior to the neck or at the side or front of it. Some turn the uterus over; others draw it down and remove it. Some leave the opening in the floor of the pelvis; others close it. It may be drained either

with iodoform-gauze or a tube. If easily done, the tubes are also removed. It is not the custom here in Germany, as in France and England, to use the clamping forceps to restrain the hemorrhage from the ligamenta lata. The prognosis in the total extirpation of the uterus is quite as good as in the supra-vaginal operation, and is rapidly supplanting it.

Those attending laparotomies in the clinics of Olshausen and Martin are required not to come in contact with any infectious material the day before the operation; to wear clean linen and clothing which has not been in the reach of infection; to take a full bath immediately before coming to the operation; to remove the coat, vest, collar, neck-tie and suspenders before entering the room; not to touch any of the instruments or materials used in the operation. The operator and his assistants wear a suit of muslin, and are thoroughly non-septic.

Saenger's method of performing Cæsarean section is rapidly gaining confidence among the Germans; Credé, Leopold and Gusserow have all done the operation and recommend it very highly. Leopold recommends complete closure of the abdominal cavity with the continued suture after the protrusion of the uterus. The hemorrhage after the uterine incision he controls by means of a rubber band or manual compression. He is careful to free the uterine cavity from decidua and sees that the uterine sutures are very exact in their coaptation. The uterus is opened with an incision beginning near the fundus and extending down to the place where the peritoneum is movable and sits loosely on the inferior uterine segment. The cavity is strewn with iodoform and the incision closed with eight silver sutures, which close the muscle without the decidua; about sixteen silk sutures are then applied, which penetrate the peritoneum only.

The operation is most successful in Germany; the first 50 cases after Saenger resulted in 36 recoveries or 72 per cent. After Porro, 29 died, or 58 per cent. After Saenger, 14 died, or 28 per cent. This shows a difference of 30 per cent. in favor of Saenger.

The Sixtieth Session of The Association of German Naturalists and Phy-

sicians was held at Wiesbaden. This association is one of the most important of its kind in Germany and draws from all parts where the German tongue is spoken. Its membership numbers way up in the thousands. The city did its utmost to make the meeting a pleasant one. A large reception platform was erected at the depot; and the principal street, Wilhelm Strasse, which leads from the depot to the Kursaal, was highly decorated with flags and evergreens. The session was opened at 9.30 A.M., September 19th, by Prof. Dr. Fresenius, of Wiesbaden. The president in his opening speech said that this was the third time he had the honor to preside over this assembly, and it was the third time the association had the pleasure of meeting in this city. Contrary to human experience the association is becoming every year more vigorous instead of growing gradually weaker as the three score years were attained. The growth of the association during the last two decades was due in a large part to the union of the Fatherland and the increase of freedom, for which we have largely to thank our worthy emperor, whose interest in the advancement of science is so well known. Three cheers were then proposed for the emperor, which were given with a will and a telegram was sent to him. Dr. von Ibell welcomed the guests as mayor of Wiesbaden, and dwelt on the great good done the city by hygiene.

The scientific papers were then begun, the first being by the renowned chemist, Professor Wislicenus, of Leipsic, and was "Concerning the Development of the Teaching of the Isometric Chemical Connections."

Prof. Preyer, of Jena, read on the subject, "Science and Schools." He discussed the question of over pressure in the schools and was in favor of the development of the body as well as of the brain. He dwelt at length on the subject of short-sightedness among the scholars, which is nowhere so prevalent as here in Germany, and which is year after year becoming more prevalent, and which, in fact, can be noticed to become more and more aggravated as the classes are more advanced. The health of the children also suffers in

other respects at school. He thought the short-sightedness was present in such great amounts on account of the poor light in the school-rooms, the faulty position of the scholars while at study and the unreasonably long duration of the hours of instruction, by which the brain is overstrained; and additional trouble is caused by the badly constructed school-benches and desks and the holding and carrying of heavy books and other materials. The classics, he thought, occupied too much time in the schools. They were studied by children of too tender years, and studied too much and too long. It were better were the modern languages, modern history, and the sciences studied even to the exclusion of the dead languages. The paper was received with great manifestations of pleasure.

Dr. Schwartz, of Cologne, read a paper on "Hygienic Problems which present themselves to the Physician who treats Diseases which spread in Epidemics." The author cited the readiness with which the plague among animals was controlled by the authorities by prompt efforts to prevent its spread, and said that efforts in this direction with regard to infectious diseases among men are not nearly so prompt or efficacious, and left much to be desired. Many of the rules which are made for the prevention of the spread of disease among men conflict more or less with private interests and are thus rendered to this extent ineffective. The public good is too often laid aside for private interests. It is very necessary that early and exact knowledge of a beginning epidemic be had.

Dr. Meinert, of Dresden, read on the influence of the temperature of the atmosphere on the mortality from diarrhoeas of nursing children. This gentleman spoke of the insufficient ventilation and too great warmth of the houses during the summer months. It is worthy of observation that the death-rate in the several stories of the house is different. In the rooms of the cellar, which are generally cool, the death-rate from diarrhoeal diseases reaches only 4 per cent. It is highest, however, on the ground floor, where it reaches 12.75 per cent. This is supposed to be occasioned by the fact that this floor

is exposed both to the direct rays of the sun and to the reflected heat from the ground. In the first, second and third stories the mortality is considerably lessened. Houses which cool off slowly, as brick and stone ones, and the houses of bakers in which the bake-oven is built, thus keeping up the heat, have more children suffering from these diseases than others. In the working classes, the mortality among children from this class of diseases reaches 31 per cent.; in the middle classes, 28 per cent. and in the higher classes a lower proportion. The better classes, by opening their windows, and clothing their children in a sensible manner avoid this high mortality. It is interesting to notice that in the South of Europe, for instance in Italy, where the houses are built with the idea of being as cool and well ventilated as possible, the death rate from these diseases is not so high as in Germany, where this ventilation is not thought necessary.

Dr. Ludwig Wolf, of Berlin, read on "The Coast and Inland Climate of Africa." On the coast the rainy and dry periods exist, but in the interior there is no such sharp division. The temperature change in the interior is very great. In central Africa malaria is the only disease which causes much trouble. Other diseases are present, but not so much so as in Europe. He would not recommend emigration in large numbers to that part, as equatorial Africa is not well suited for Europeans.

E. S. MCKEE.

RICHMOND.

VIRGINIA STATE MEDICAL SOCIETY—DISCUSSION ON ANÆSTHETICS—DR. HAMMOND ON COCAINE—SOCIAL FEATURES OF THE MEETING.

THE annual meeting of the Medical Society of Virginia brought together over two hundred physicians from different parts of the State during the present week. The Society was presided over with dignity by Dr. Bedford Brown, of Alexandria, an urbane, courteous gentleman of the old school, whose learning is equal to his popularity. The President for the ensuing year is Dr. Benjamin Blackford, of Lynchburg, a solid-looking man of business methods,

under whose administration the Society will doubtless prosper even more than hitherto. The healthy condition of the organization is shown by the fact that nearly seventy-five new members were elected during the meeting, bringing the total membership up to nearly seven hundred. This, I am informed, comprises nearly one-half of the regular practitioners of this State—a larger proportion than probably any other State Society can show.

The scientific proceedings were of a high order of excellence. The discussion on anæsthetics on the first day of meeting brought out the best talk on the subject that it has ever been my good fortune to listen to. The subject was introduced by Dr. Hunter McGuire, who may be looked upon as easily the first surgeon in the South. Dr. McGuire confined his consideration to chloroform and ether. The following are the more important points of Dr. McGuire's remarks:

"In the rapid progress of science, it is possible that some other anæsthetic, safer and superior to either chloroform or ether, will be discovered, and the discussion of the relative value of these agents become unnecessary; but many years of very patient observation will be needed to settle the fact that some new agent is safer and better. When the experience of the civilized world is collected and analyzed, it will be found that in certain cases ether should be given, and in certain other cases chloroform employed, and that every good surgeon will be expected to exercise discrimination in the selection of his anæsthetic. For myself, I am wedded to neither of these agents. In general terms, in very feeble American people, or those suffering from the prostration of shock, or loss of blood, I prefer ether; in either the very young or the old, or in cases where cardiac, renal, or pulmonary disease is suspected, as a rule, I think chloroform is safer.

That both agents sometimes kill the patient, the most bigoted and partisan advocate of either ether or chloroform must admit. But which of the anæsthetics is the more dangerous and apt to kill is the paramount but undetermined question. Safety of the patient is the important point, before which all else

should give way; compared with that, convenience, comfort, time, money, and everything else are as nothing. The tracings of the sphygmograph show invariably during the inhalation of chloroform marked depression of the heart and circulation. In anæsthesia from ether this is only occasionally seen, and then it is not so marked. The sphygmograph shows that depression of the vasomotor functions, and cardiac paralysis are more likely to occur from chloroform than from ether; that the former is a much more powerful and dangerous agent; but clinical experience shows that when the vapor of chloroform is withdrawn, and consciousness returns, the patient is free from all danger from the anæsthetic. In ether, several minutes after the vapor is taken away, and after all danger from the anæsthetic is supposed to have passed, when all ether vapor, we would think, had escaped from the lungs, dangerous symptoms suddenly present themselves, from which the patient is with difficulty rescued, or even death itself may take place. Or again, hours, or even days, after ether has been given, acute nephritis or pneumonia occurs, directly traceable to the ether, threatening the life or causing the death of the patient. We may say, then, that chloroform is the more powerful and immediately dangerous anæsthetic; that when it kills it does so suddenly by shock; but that when the vapor is withdrawn, and consciousness begins to come back, the danger is absolutely over. Ether may kill, as chloroform does, just as suddenly during the operation, but it is much less likely so to do. The danger from this anæsthetic is, however, not over when the vapor is removed. Alarming symptoms or death may occur, by cardiac paralysis, a few minutes after, or by acute nephritis or pneumonia hours or days after the administration. I think, with regard to the selection of an anæsthetic, this much is established; that in acute or chronic diseases of the kidneys or lungs ether is more dangerous than chloroform.

Both ether and chloroform, especially the latter, may kill where too concentrated a vapor is used; both may kill during the period of muscular

excitement, or by paralysis of the respiratory nervous centre.

To give chloroform requires skill, and the ability, not always possessed by an assistant, of attending strictly to his own business. A man accustomed to give ether is not always a safe administrator of chloroform. In giving chloroform it is better to begin with a small quantity, and allow with the vapor plenty of fresh air, and gradually accustom the patient to its use. Never surprise or alarm him with vapor too concentrated or abundant. Never give chloroform in a hurry. The use of ether does not demand so much care, although, if what I have stated with regard to its dangers is correct, a certain amount of skill and caution should be observed.

The plan of giving alcohol as a heart stimulant just before administering chloroform is, in my opinion, liable to serious objection, and for many years I have abandoned its use in this way. In the first place, it is difficult to know in all cases what a stimulant dose of whiskey is; so much depends upon the habits and temperament of the patient, or the depression which disease, injury or mental apprehension has produced. A stimulant dose of whiskey in one man may be a sedative dose in another, and in all cases the secondary sedative effect of the alcohol may come on, especially if the anæsthesia is kept up for some length of time, and add to rather than diminish the depression. I am satisfied that alcohol increases the duration and violence of the stage of excitement, and makes nausea and vomiting more likely to occur during the operation, and especially after it is completed. We all agree that men accustomed to the free use of liquor are bad subjects for anæsthetics, and my observation leads me to think that a dose of whiskey before giving chloroform averts no danger, but rather adds to this, as well as to the general discomfort of the patient. There is one hazard from chloroform which, although we are frequently taught, we are apt to forget, that is operating during partial anæsthesia. Many of the deaths from chloroform have happened in this way. A tooth is to be drawn, a pile tied, a

felon opened, or some operation performed which is the work of a few seconds, and the inclination is to operate before the anæsthesia is complete. It is extremely hazardous to do this.

Ether is safer when the operation is to be performed with partial anæsthesia. In all operations about the face or throat, where blood or other fluids may escape into the wind-pipe, ether is the more dangerous, and chloroform the safer agent to use.

In the beginning of this paper, I said that I thought chloroform the safer agent in cardiac affections. I wish to except from this class a nervously weak heart. In organic valvular disease of the heart, with the usual compensative muscular hypertrophy, I have given chloroform hundreds of times, and never had cause for alarm. On the contrary, the heart's action became usually more quiet and regular, and chloroform is safer here than ether. But in a heart weak from fatty degeneration, or from loss of blood, or great anæmia from other causes, any anæsthetic is hazardous, but chloroform is more dangerous than ether.

Of all the elements of danger from chloroform, fear on the part of the patient is the greatest. If the patient is, so to speak, in mortal terror of the anæsthetic, the heart is nervously weak, and the hazard to life is especially great; all things being equal, ether then is the safer agent to use. To the dread of the operation the patient may have added the hazard of the anæsthetic, and the emotional condition be one of absolute terror. Fatal cases under such circumstances are not uncommon; a few words of encouragement from the administrator, or a calm, confident manner on his part may allay the anxiety; but if it does not, and the great alarm continues, it will be safer to give hypodermically one-quarter grain of morphine and one-hundredth of a grain of atropine and wait fifteen or twenty minutes for the physiological effects of these drugs, before giving the anæsthetic. Emotional excitement greatly increases the chances of paralysis of the nerve centres which preside over the circulation. Morphine obtunds the sensibility of the nervous system, and at the same time is a cardiac stimulant. Atropine is

probably still more powerful in this direction, and the employment of these drugs, under such circumstances, will lessen or completely remove the danger. I think both reason and clinical experience have confirmed this fact.

Children take chloroform well and safely. The principal reason for its safety in children is that they are ignorant of its danger, and are not afraid of being killed by it. It is a significant fact, too, that Nusbaum has seen in military life 40,000 administrations of chloroform without an accident, and that in the Confederate army corps, to which I was attached as Medical Director, chloroform was given 28,000 times without a death ascribed to its use.

Can these facts be explained by the age, sex, health, etc., of the soldiers? I think not, because men of the same age and health sometimes die in the hands of civil surgeons in chloroform anæsthesia. In military life, I know, not simply from theory, but from actual observation, that the pain of a gun-shot wound and the danger from it to life, or loss of limb, makes the soldier dread the hazard of chloroform very little, if at all. It is a significant fact, too, in this connection, that chloroform has been given to hundreds of thousands of women in child-birth, and, when the agent was in the hands of competent men, but one fatal case had occurred, and in this solitary instance it was by no means certain that death was due to the anæsthetic. Even when surgical operations have been required and performed in obstetrical cases no deaths have occurred from its employment. Indeed, so far as we can see from the experience of thousands of cases, chloroform is absolutely safe in parturient women—even less dangerous than a dose of ergot, or oil, or opium. How can we explain this great and entire exemption from danger when using chloroform in obstetrical cases? We cannot account for it by the sex of the patient or the small quantity given at a time, for in other conditions death sometimes results from small doses. Her age has nothing to do with it. She is, likely, stronger and more healthy during the child-bearing period of life than in youth or old age. Nor does this same

condition of age or strength or health avert the danger from chloroform in other cases not obstetrical. The recumbent position surely does not explain it, for while this position in anaesthesia, from both chloroform and ether, should, when possible, always be observed, many deaths from chloroform and ether have happened to patients in the recumbent posture. Have the pains of labor anything to do with this exemption? I believe not, for we have pain from the surgeon's knife, and from the disease or injury for which the operation is performed. The pains of labor, too, often stop for several hours. I think we can only explain this absence of danger from chloroform in obstetrics by the absence on the part of the patient of any dread of the chloroform; as a rule, so far from any fear of it, she begs pitiously for it, and her condition renders her absolutely free from that emotional state which depresses the heart and circulation."

Among the other papers of more than ordinary interest were one by Dr. W. A. Hammond, of New York, on Coca and Cocaine, and one on Battey's Operation, by Dr. Battey, who is an Honorary Fellow of the Society.

Dr. Hammond related his personal experience and observation with cocaine, and stated with great positiveness his opinion that no such condition as the "cocaine habit" can exist. Patients accustomed to the continuous use of large doses, could give it up without suffering should they desire to do so. This proposition met with marked dissent.

Dr. Milton Josiah Roberts, of New York, gave an interesting demonstration of his electro-osteotome.

The social arrangements were beyond criticism. On the first night the Faculty of the Medical College of Virginia gave the Fellows and invited guests a theatre party, followed by a reception and collation. On Thursday evening, Drs. McGuire and Joseph A. White gave elaborate receptions, at which the most appetizing viands and inspiring beverages were offered with lavish hands,—and accepted by appreciative palates. After adjournment, Dr. Chas. M. Shields gave an elegant reception as a prelude to the concluding banquet

tendered by the profession of Richmond to the Society. At this banquet Governor Fitzhugh Lee was present as a guest and made one of his characteristic speeches in response to the toast "The State of Virginia." G. H. R.
Richmond, Va.

NEW YORK.

INCrustation of Tube in Intubation;
INSANE Asylum Management;
SOCIETY NOTES.

AT the meeting of the Pathological Society, October 26, the committee on microscopy reported on an incrustation of a tube used in intubation of the larynx in a case of diphtheritic croup. They found the incrustation to be composed of carbonate of lime. It was limited almost entirely to the head of the tube. Beneath, the surface of the tube was to a considerable extent roughened. Dr. Freeborn, who made the report, was disposed to think that the bichloride of mercury, used in the treatment of the case, had formed an amalgam with the gold plating, and on the rough surface thus exposed the carbonate of lime had been deposited.

Dr. Northrup said this constituted a new point in the history of intubation. He had had one case in which the head of the tube became slightly roughened, and while the patient recovered, she was a long time in regaining her voice. This may have been due to the roughened surface remaining so long in contact with the soft parts.

This fall and last summer the daily press has been agitating the abuses connected with our asylums for the insane. Doubtless, as a result of such agitation, a number of inmates have been set at liberty sooner than might otherwise have been the case. Sensationalism usually accompanies to some extent the reformatory efforts of the public press. This is the view of the profession regarding the course of *The World*, in having one of its reporters pretend insanity, and thus get committed to the Asylum for Women on Blackwell's Island. But truth often has a greater moral effect when presented in a sensational way.

If commitment to an asylum were not looked upon as implying imprisonment for life; if it were generally be-

lieved that the patients were released as soon as there was fair evidence of cure, as in the case of typhoid fever, pneumonia and other diseases, for which the poor are admitted to hospitals; it is not likely that any criticism would have been made of those who examined and committed Nellie Bly to the asylum. The fact that she pretended insanity would have been sufficient reason for keeping her for a time under observation. But there is a popular impression that once declared insane, always insane; and once placed in an asylum, always to remain in an asylum. Physicians know that apparent sanity among these inmates is often only temporary, and that relapses may occur in cases of recent cure when returned to their former surroundings. Notwithstanding these facts, the present state of public sentiment is such that it would probably be better to run some risks of discharging patients before thoroughly cured, than to detain one sane person who should be at liberty. Moreover, it begets a suspicion that those in charge, who make lack of sufficient funds an excuse for want of proper appointments and care of the inmates, are misusing the money appropriated. Why, they ask, do the authorities retain also the sane when there is want of sufficient means to provide properly for the insane? Is it not because they are allowed so much a head per diem, and of this meager allowance they take a part for themselves? The more inmates, therefore, the greater the boodle!

The *World's* reporter found that it was easy to get into the asylum, but difficult to get out; that there were a number of sane people detained among the insane; that the treatment was such as to drive the nervous and weak in body permanently insane; that the rooms were cold; that the bed-covers were insufficient; that the bathing facilities were inadequate; that the nurses abused the inmates; that the food was insufficient and of poor quality; and that the doctors gave too little attention to the patients.

The outcome is, that the grand jury has made an investigation, and the people are requested to open their pocketbooks. "They found that the

food supplied to the patients, although sufficient in quantity, was not good enough in quality." What could this mean? That the meat was putrefied? That the potatoes were rotten? That the flour was infected with worms? That the fruit had undergone decay? If so, then where is our Board of Health? After the Italian fruit dealers, who, here and there, have partly decayed apples on their stands? Food may be poorly cooked and badly served, but want of savor due to this cause would hardly be attributed to bad quality, and if it were, it might be readily corrected. The grand jury recommended that the law be so changed that the supervision of the insane be placed in the hands of a different commission from that which has charge of the criminals.

Dr. Joseph D. Bryant, of the Board of Health, read a paper at the Academy of Medicine, November 3d, on "How Can the Medical Profession Aid the Board of Health?" He recommended that a conference committee be appointed from among the profession to co-operate with the Board of Health.

On motion of Dr. Elliott, the President was authorized to appoint a committee of five, including the president.

At the meeting of the Medical Society of the County of New York, October 24, Dr. Laurence Johnson was re-elected president; Dr. Carpenter, secretary; Dr. A. S. Hunter received the office of treasurer, filled for eight years by Dr. O. B. Douglas.

A vote of thanks was extended Dr. Douglas for his services. It appeared from the report of the Comitia Minora that the society actually made money by publishing a directory of its membership and of the profession in the city; the income from advertisements over all expenses was nearly one hundred dollars.

R. C. S.

November 4.

THE QUARTERLY REVIEW OF NARCOTIC INEBRIETY is the name of a new periodical to be devoted to the consideration of the opium, the chloral, and the allied habits. I. A. Loveland, M. D., will be the editor, and the office of the journal will be at Gilsum, N. H. The first number is to be issued January 1, 1888.

REVIEWS AND BOOK NOTICES.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES. Edited by Albert H. Buck, M. D., New York City. Volume V. Wm. Wood & Co., 1887.

The present volume of Buck's Hand-book presents to the readers a series of monographs extending alphabetically from Miliaria to Pott's Disease. The principal articles are freely illustrated, especially the sections on anatomical and botanical subjects. We cannot add anything to the terms of commendation in which we have previously spoken of this splendid work, which needs to be seen and examined in order to be appreciated.

DISEASES OF THE FEMALE MAMMARY GLANDS, by Th. Billroth, M. D., of Vienna, and NEW GROWTHS OF THE UTERUS, by A. Gusserow, M. D., of Berlin. Illustrated. These two works constitute Vol. IX of the "Cyclopædia of Obstetrics and Gynæcology," (12 vols.; price, \$16.50) issued monthly during 1887. New York: William Wood & Company.

Like the preceding issues of this series, the present volume, which contains two treatises, one by Billroth, the other by Gusserow, edited and translated respectively by Drs. Egbert H. Grandin and Edmund C. Wendt, is well printed and contains numerous illustrations. The twelve volumes of this publication will form a complete library of the present state of development of midwifery and diseases of women. The remarkable vitality shown in the growth of these departments of medical science, make it imperative upon physicians to have good works of reference, and we consider the present series of standard treatises upon subjects connected with gynæcology and obstetrics as specially suited to the wants of the general practitioner.

ELEMENTS OF BOTANY. Including Organography, Vegetable Histology, Vegetable Physiology and Vegetable Taxonomy, and a Glossary of Botanical Terms, illustrated by nearly five hundred Engravings from Drawings by the author. By Edson S. Bastin, A. M., F. R. M. S., Professor of Botany, Materia Medica and Mi-

croscopy in the Chicago College of Pharmacy. Cloth, octavo, 300 pages, price, \$2.50. Chicago: G. P. Engelhard & Company, 1887.

In order to become a botanist it is necessary to botanize and study flowers rather than to study books. The natural method of approaching a subject is to go from step to step, from the known to the unknown. This is the plan pursued by Prof. Bastin in this elementary treatise. Practical botany is taught by a series of graded exercises in analysis of familiar plants, and field botany is encouraged in every way. The great defects of ordinary treatises in botany is that they require the aid of a teacher, and the special attraction of this work is, that to the intelligent student it is sufficient to give a good introduction to botanical science. It is freely illustrated from original drawings, and is well printed.

A COMPEND OF THE PRACTICE OF MEDICINE. By DAN'L E. HUGHES, M.D. Physicians Edition, thoroughly Revised and Enlarged; based on the Third Revision of the Quiz Compend Edition, and including a very complete section on Skin Diseases. Philadelphia: P. Blakiston, Son & Co., 1887.

This gilt-edged edition for physicians is as ornamental as it is useful. The former arrangement, in two volumes, which is now in its third edition, is the basis of this revision, which is enlarged and has a section on skin diseases added. Those who wish a convenient hand-book of Practice for reference, we think will find in the one before us, a superior book of this kind.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, with the beginning of the new year, will be published monthly instead of quarterly as heretofore. This is a step required by the spirit of the times, when the evidences of medical progress appear so rapidly that the older methods of publication are superseded, just as the locomotive and steamboat have taken the place of the stage-coach and canal-boat. We herald this change as an indication of renewed vitality in the oldest and best of our American reviews.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

ON THE ETIOLOGY OF ELEPHANTIASIS ARABUM.

Editors *MEDICAL TIMES*:

Sirs:—The enclosed article on elephantiasis Arabum, just received from Dr. Mapother, consulting surgeon to St Vincent's Hospital, Dublin, is of so much importance as casting more light on the etiology of this familiar, but little understood disease, that I deem its reproduction in the columns of the *TIMES*, together with a few remarks on the disease, desirable. The author, in an accompanying communication from Vienna, Austria, calls attention to the fact that he had had the pleasure of a long conversation with Prof. Kaposi, and that this noted dermatologist had thoroughly agreed with him as to the value of the case cited as bearing upon the cause of the disease.

So far as I am acquainted with the literature on the subject, very few such cases have been recorded, which adds to the interest in this particular one. It is a well-known fact that muscular action assists in the upward flow of blood and lymph from the lower extremities; any conditions of climate, occupation or position that prevents active exertion is favorable to congestion and lymphatic stasis.

The development of elephantiasis Arabum in tropical climates is largely due to the enervating influence of such climates which leads to an avoidance of muscular exercise on the part of the inhabitants, and can almost be said to be endemic in tropical and even in semi-tropical climates, while it is very little known in the temperate zone.

I cannot agree with Dr. Mapother when he says that "racial and climatic influences are not potent factors in the

production of disease." Any one residing in a tropical climate will be subject to the disease, especially if of a lymphatic temperament. The climate does not act directly, however, but indirectly by inducing sedentary habits. The pathological study of the conditions found in this disease seem to point to its lymphatic origin. The lymphatic glands first become swollen and a general lymphatic stasis results, after which hypertrophy of the connective tissue follows. Quite a number of theories have been advanced regarding the primary cause of the lymphangitis, some laying it to emboli of micro-organisms which block up the lymph channels. That this may be so in some instances is highly probable. Considerable has been written lately regarding the connection of the filaria sanguinis hominis in causing the disease, several cases having been reported where these organisms have been demonstrated in the lymph varices of persons suffering with elephantiasis Arabum. Still the question is pertinent as to whether the filaria be not co-incident rather than an etiological factor in producing the disease. The finding of an organism in a diseased tissue must never be taken as proof of its etiological character. It is possible that the disease may be brought about by different causes, and I do not see why the presence of the filaria sanguinis hominis can not produce elephantiasis Arabum located as it is, when it infects man, in the circulatory system, and, acting as it must, as a greater or less irritant to the economy at large, but that these organisms are always the etiological factors in producing the disease is open to doubt. The fact that the disease is known in countries where filaria are unknown is proof to the contrary.

To my mind any agent that tends to produce lymphatic stasis may also cause elephantiasis, provided such a diathesis exists in the individual. The case in hand seems to point that way. Dr. Mapother, in speaking of the etiology of the disease, says:

"A study of the conditions which lead to the disease in tropical countries seems to me to prove it due to blockage of those subcutaneous lymphatics which are mainly active while muscles

are keeping up the erect posture, and that racial and climatic influences are not potent. Coast fishermen and laborers standing barefooted in water or mud are usual victims. Their posture, liability to skin inflammation from changes of temperature, and checked secretions, and spanæmic state from lowly nitrogenised food and malaria afford all the conditions favorable to lymph production, stasis, and blockage. Elephantiasis is more frequent in Ireland than in England, and with us factors like those just named exist. The evidence seems complete that this hypertrophy of every tissue arises from over-supply of lymph, over-produced or stayed in its flow. Pathological changes in some other lymph-abounding parts are somewhat analogous—for example, recurrent tonsillitis leaving much enlargement and macroglossia. Phlegmasia dolens again presents some likeness, differing however in its acuteness, non-recurrency, and the entire resorption of the effused lymph.”

Prof. Kaposi, regarding the obscurity of some cases, says: “Nevertheless it is, as previously remarked, difficult in many cases to make out the cause of elephantiasis of the extremities, especially for the Orient and in the tropics,¹ or also for the sporadic occurrence, of cases of elephantiasis genitalium with us (Austria). There must certainly be a racial or individual predisposition or through climatic conditions a way to explain our ignorance. The case of elephantiasis telangiectasis of Heker and Czerny was considerably developed in three generations of the same family. Yet this was not, as before said, a common form of elephantiasis Arabum.” The same climatic conditions acting on a family in which a predisposition existed would be very apt to reproduce the disease through several generations. These features do not form any exception to the rule, but on the other hand strengthen the hypothesis that the disease is of lymphatic origin, and that any cause which tends to produce lymphatic stasis may develop the disease. Dr. Mapother’s case of elephantiasis Arabum induced by posture, as below quoted, also seems

to indicate the correctness of this view. Dr. Mapother’s case is as follows:

“A lady, now aged 80, has had, owing to rheumatic gout, her hips and knees so stiffened, in the flexed position, that for the last seven years she has permanently kept the sitting posture. Lying on the back on a bed or on the side in a hammock became unendurable from the tenderness of the vertebral spines and shoulder prominences. The legs, being thus constantly dependent, gradually developed every condition of elephantiasis. The left now measures 20½ inches, the right 17, just above the ankle fissure, which is the fittest standard point for measurement. They both show the raspberry surface of the enlarged papillæ, the soddened cuticle, especially between the toes, while in some spots a likeness to the epidermis in ichthoysis appears. A few ulcers keep open, and from them there frequently is lymphorrhœa, and occasionally a discharge of blackish matter. She is quite unable to lift either limb, owing to its weight and the weakness of degenerated muscle. About thrice yearly, but without regular periodicity, shivering, extensive redness over the legs, and hard tender streaks along the lymph vessels towards the saphenous opening have occurred, but there never has been any affection of the lymph glands. It may be noted that blockage of these paths in the ham and in the groin should respectively lead to swelling on the outer and the inner sides of the leg; but this limitation has never been observed even temporarily in the course of the disease. She has always lived with good hygienic surroundings.”

As factors in the production of the above case, I would rank: 1st. Posture—the lymph had to rise vertically, and the entirely inactive muscles did not compress the vessels which contained it. It therefore exuded, and organized, hypertrophying every tissue. It is in like places, far removed from the central circulatory forces, dependent and without active muscles, that we meet with other examples of elephantiasis—in the scrotum, prepuce, labiæ, pendulous breasts, and earlobes. In these places the recurrent inflammations are not usually observed. 2d. Hyperfibrinosis

¹ Hautkrankheiten, page 651.

in so rheumatic-gouty a person, would give material for the increase of all the tissues, the connective above all, whilst the lessening of red globules would slow their waste. Of parts whose increase may be readily judged, there are examples in which the femoral artery became enlarged thricefold, and in which the popliteal nerve was six times its usual size, the trophic fibres being presumably those most added to. Further, elephantiasis scroti must be looked on as the most astounding of all hypertrophies, for in some instances that part has come to overweigh the rest of the body.

If posture has, as contended, much to do with the production of elephantiasis, elevation, friction upwards, and compression with elastic bandages, should be hopeful measures during the stage of inflammatory oedema.

Since the above was written, Mr. Hutchinson's last fasciculus has been published. That profound pathologist states: "As favoring the production of elephantoid conditions, it is almost essential that the part affected should be pendulous, or, as in the case of the lower extremity, at a hydrostatic disadvantage in reference to its circulation."

The fact that elephantiasis is generally bilateral, is another point in favor of the opinion that the disease is due to lymphatic stasis, where the position of the part affected is, as Dr. Hutchinson puts it, at a "hydrastatic disadvantage as regards its circulation."

The fluids drawn from a part affected with elephantiasis Arabum are very rich in white blood corpuscles. These invade the interstitial connective tissue, and give rise to hypertrophy of the part. The disease seldom presents as an acute inflammation, but rather as a subacute or chronic condition. The development of new connective tissue being more or less constant, the wandering leucocytes or plasma cells become changed into fixed connective tissue cells, as in the normal development of connective tissue. The state of congestion caused over-nutrition of the part, hyperplastic connective tissue naturally results. Treatment should consist in improving the circulation. The patient should take as much

exercise as possible. The ligation of the femoral artery has been suggested, but is denounced by the best authorities. The application of an ordinary cloth bandage, which is afterwards wet, or the constant use of elastic bandages, is, perhaps, the best practice. Compression of the femoral artery has also been suggested. Massage and methodical application of unguentum cinereum or ung. juniperi, with diligent use of hot fomentations, together with a horizontal position, will markedly improve the condition of the patient. All these lines of treatment are based on the supposition that the disease is the result of lymphatic stasis.

W. X. SUDDUTH.

N. E. cor. 18th & Vine Sts., Phila.

MISCELLANY.

IS INSANITY ON THE INCREASE?

The Legislature of the State of Pennsylvania two years ago, becoming alarmed at the apparently great increase in the number of the insane brought to their attention by the demands for increased accommodations at the various State institutions for the insane, appointed a committee of investigation. Application was made to the Committee on Lunacy of the State Board of Charities for statistical information. Dr. Thos. K. Morton, the Chairman of the Committee, read a paper, Oct. 18, before the Association of the Directors of the Poor, at its meeting at Gettysburg, in which he communicated the results of the investigation of the Committee on Lunacy. He demonstrated that the actual increase of the proportion of the insane to the general population, during the last forty years, had actually only been one-nineteenth of one per cent. The address in full has just been published by the State printer, and will be sent by Dr. Morton to any one wishing to have it.

OFFICIAL LIST

OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING OCTOBER 29, 1887.

MEDICAL INSPECTOR N. L. BATES, ordered to hold himself in readiness for orders to the "Trenton."

ASSISTANT-SURGEON F. A. HESLER, ordered to examination for promotion.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOV. 5, 1887.

- SURGEON P. FITZSIMMONS.**—Ordered to the U. S. S. "Marion."
ASSISTANT-SURGEON L. W. ATLEE.—Ordered to the U. S. S. "Marion."
MEDICAL INSPECTOR N. L. BATES.—Ordered to the U. S. S. "Trenton."
PASSED ASSISTANT-SURGEON HENRY G. BEYER.—Ordered to the U. S. S. "Trenton."
ASSISTANT-SURGEON STEPHEN S. WHITE.—Ordered to the U. S. S. "Trenton."
PASSED ASSISTANT-SURGEON P. M. RIXEY.—Detached from the U. S. S. "Trenton" and wait orders.
PASSED ASSISTANT-SURGEON RICHARD ASHBRIDGE.—Ordered to the U. S. Receiving Ship "St. Louis."

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE THREE WEEKS ENDED OCTOBER 29, 1887.

- SURGEON P. H. BAILHACHE.**—To proceed to Buffalo, N. Y., Erie, Pa., Ashtabula, Cleveland, Sandusky and Toledo, Ohio, as inspector, Oct. 14, 1887.
SURGEON H. W. SAWTELLE.—Detailed as Chairman of Board for the physical examination of officers, Revenue Marine Service, Oct. 27, 1887.
PASSED ASSISTANT-SURGEON FAIRFAX IRWIN.—To inspect unserviceable property at Boston, Mass., and Portland, Maine, to proceed to Vineyard Haven, and New Bedford, Mass., as inspector, Oct. 8, 1887.
PASSED ASSISTANT-SURGEON J. H. WHITE.—Leave of absence extended four days, Oct. 21, 1887.
ASSISTANT-SURGEON J. B. FATTIC.—Granted leave of absence for seven days, Oct. 28, 1887.
ASSISTANT-SURGEON W. J. PETTUS.—When relieved at Savannah, Ga., to proceed to Galveston, Texas, and assume charge of the Service, Oct. 17, 1887. Granted leave of absence for thirty days, Oct. 21, 1887.
ASSISTANT-SURGEON J. J. KINYOUN.—Granted leave of absence for fifteen days, Oct. 19, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED NOV. 5, 1887.

- C. S. D. FESSENDEN, SURGEON.**—Detailed as Chairman of Board of the physical examination of officers of the Revenue Marine Service. Nov. 1, 1887.
F. M. MEAD, PASSED ASSISTANT-SURGEON.—Detailed as Recorder of Board for the physical examination of officers of the Revenue Marine Service. Nov. 1, 1887.
A. D. BEVAN, PASSED ASSISTANT-SURGEON.—Relieved from duty at Portland, Oregon; ordered to Marine Hospital, New York. Nov. 2, 1887.
P. M. CARRINGTON, ASSISTANT-SURGEON.—Relieved from duty on Revenue Steamer "Rush"; ordered to Marine Hospital, San Francisco, Cal. Nov. 2, 1887.

T. B. PERRY, ASSISTANT-SURGEON.—Relieved from duty at Marine Hospital, San Francisco, Cal.; ordered to assume charge of service at Portland, Oregon. Nov. 2, 1887.

H. T. GOODWIN, ASSISTANT-SURGEON.—Relieved from duty at Norfolk, Va.; ordered to Marine Hospital, New Orleans, La. Nov. 5, 1887.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCT. 23, 1887, TO NOV. 5, 1887.

MAJOR CHAS. R. GREENLEAF, SURGEON.—Will proceed from this city to the places hereinafter named, in the order in which they are named, for the purpose of investigating the methods of examining recruits at the depots and rendezvous located thereat, and of instructing recruiting officers in matters pertaining to such examinations: Baltimore, Md.; Philadelphia, Pa.; Camden, N. J.; New York City and David's Island, N. Y.; Boston, Mass.; Portland, Me.; Albany and Buffalo, N. Y.; Cleveland, Ohio; Detroit, Mich.; Chicago, Ill.; Milwaukee, Wis.; St. Paul, Minn.; Jefferson Barracks and St. Louis, Mo.; Cincinnati and Columbus, Ohio; and Pittsburg, Pa. S. O. 240, A. G. O., Oct. 25, 1887.

MAJOR P. J. A. CLEARY, SURGEON.—Ordered to proceed from Fort Huachuca to Fort McDowell and report to the Commanding Officer for duty as Post Surgeon. S. O. 111, Dept. Ariz., Oct. 10, 1887.

CAPT. CURTIS E. MUNN, ASSISTANT-SURGEON.—Relieved from duty at Fort Canby, Washington Ter., and ordered for duty as Post Surgeon at Fort Klamath, Oregon. S. O. 251, A. G. O., Oct. 28, 1887.

CAPT. G. W. ADIAR, ASSISTANT-SURGEON.—The leave of absence for seven days granted on the 27th inst., by the Commanding Officer of Fort Brady, Mich., is extended twenty-three days. S. O. 231, Div. Atlantic, Oct. 28, 1887.

CAPT. CHAS. B. BYRNE, ASSISTANT-SURGEON.—Ordered for temporary duty at Fort McHenry, Md. S. O. 231, Div. Atlantic, Oct. 28, 1887.

CAPT. H. G. BURTON, ASSISTANT-SURGEON.—Ordered from Plattsburg Barracks, N. Y., to Watervliet Arsenal, N. Y.

CAPT. J. C. MERRILL, ASSISTANT-SURGEON.—Ordered from Watervliet Arsenal to Frankford Arsenal, Pa. S. O. 249, A. G. O., Oct. 26, 1887.

CAPT. PAUL R. BROWN, ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 250, A. G. O., Oct. 27, 1887.

CAPT. CHAS. RICHARD, ASSISTANT SURGEON.—Granted leave of absence for one month, to take effect when his services can be spared by his Post Commander. S. O. 247, A. G. O., Oct. 22, 1887.

FIRST LIEUTENANT NATHAN S. JARVIS, ASSISTANT-SURGEON.—Ordered from Dept. Platte to Dept. Missouri, for duty in the field. S. O. 249, A. G. O., Oct. 26, 1887.

PHILADELPHIA MEDICAL TIMES.

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No. 522. DECEMBER 1, 1887. VOL. XVIII

ORIGINAL LECTURE.

CLINICAL LECTURE

ON THE DIAGNOSIS OF GASTRIC DISEASE BY THE EXAMINATION OF THE CONTENTS OF THE STOMACH.

Delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM PEPPER, M.D., LL.D.,
Provost, and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—I shall to-day ask your attention to two cases, both of which bear upon the diagnosis of diseases of the stomach. The first of these is P. T., who comes from the northern part of this State. He is by occupation a stableman. He is 45 years of age and of excellent habits. He has, of course, eaten irregularly; and has been much exposed to damp, cold, and the like. He has no constitutional taint of any character, and was always a healthy man until eight years ago, when he began to suffer with pain in the abdomen, accompanied by occasional vomiting. This at first occurred immediately after eating, and also at times came on between meals. This attack appears to have been one of some acute affection, for in the course of a few weeks he entirely recovered; and he

then remained in his former excellent health until three years ago, when he had another attack, similar to the one just described. The second one, however, continued four months, and was attended with loss of flesh, strength and color. In this attack there were, as in the first, recurring attacks of pain in the abdomen, with vomiting. After continuing four months, the symptoms subsided, and he rapidly regained flesh and strength. He then remained in his usual health until eighteen months ago, when, for the third time, gastric symptoms appeared, and since then they have continued without remission. During this time the case has been complicated by the unfortunate occurrence of salivation, with total destruction of all the teeth, save three, and exfoliation of a portion of the inferior maxillary bone. I need not say how seriously such a complication would retard any attempt at recovery. Whether from this, or whether it is that this time there is something more serious than in the previous attacks, the fact remains that, since the occurrence of the present attack, the course of the case has been steadily downwards. There has been a progressive loss of flesh from 140 pounds to 97 pounds, his present weight. He is pale and haggard. His expression exhibits the effects of suffering. His nervous system has been broken down, and he is

weak and tremulous. With the exception of this failure of general health, color and strength, his symptoms have been entirely referable to the stomach.

These have consisted, in the first place, of vomiting. There have been very few days in which he has not vomited at least once. Gradually, this increased in frequency and, for a number of months prior to his admission to the hospital, he did not pass a day without vomiting and sometimes he would vomit several times a day. The vomited matters consist of the food and of slime, but it is not known that he ever brought up blood. The material thrown off is sometimes offensive. The act of vomiting has borne no constant relation to the taking of food: neither as to the character of the food taken, nor as to the period after eating that it occurs. Sometimes the food is returned as soon as taken, while at other times it remains in the stomach a considerable period, undergoing fermentation and decomposition.

A second severe symptom has been pain in the stomach. This has been referred to the epigastric region. It has been so severe that for many weeks it was found necessary to keep him under the influence of morphine. His physician writes to me that at times it has been necessary to give him as many as nine one-quarter grain doses of morphine each day. There has been no soreness complained of. There has been increasing constipation, and lately he has gone a number of days without a stool. The patient has taken no morphine since he left his home. The bowels have been more regular than for a long time, the pain has been less, and there has been very little vomiting. His wife tells us that she thinks that he was more reduced from the second attack, lasting four months, than he is at present.

Taking the man as he lies before us, and considering these symptoms which have continued progressively for eighteen months, we ask ourselves, What condition of the stomach would explain this train of symptoms? Is there any simple form of dyspepsia, or of aggravated catarrhal dyspepsia, which would do it? The symptoms have been so steadily progressive; the loss

of flesh has been so extreme; the vomiting has been so frequently repeated; the constipation has been so marked, and the pain has been so conspicuous, that it seems to me that there is no simple dyspepsia which would explain this case. When, however, we reflect that twice before in this man's history similar symptoms have been present and subsided, our judgment becomes a little confused. If the patient has the same thing to-day that he had on the two previous occasions, it must be some simple affection, and not a progressive organic disease; but the fact that he had a severe attack of catarrhal dyspepsia eight years ago, and possibly ulceration of the stomach three years ago, terminating in recovery, would not prevent the development of some organic disease at a later period.

Let us then see if we can demonstrate the presence of some serious organic disease. We should say that there must be some grave change in the walls of the stomach; either a severe ulceration with loss of continuity of the mucous membrane, interfering with digestion and causing this failure of general health, or else that there is some neoplasm forming in the walls of the organ. In all cases of severe gastric disorder we finally come down to actual palpation of the epigastrium to see if we can determine the presence of thickening or of tumor, since in grave catarrhal dyspepsia and in prolonged simple ulceration of the stomach the symptoms may so closely simulate those of malignant disease that nothing but the direct palpation of the abdominal walls will enable us to make a positive diagnosis. When we come to examine the abdomen in this case, we find, on inspection, that the belly is about normal, and that there is no distension in the gastric region. Percussion over the stomach does not give a very large tympanitic note, nor is the gastric note very extensive in its area. It does not go much beyond the median line toward the right. It does not go lower than to a line one inch above the umbilicus. Neither is there any displacement upwards of the diaphragm. There is evidently no great degree of dilatation of the stomach. You will

recognize the importance of this fact when you reflect that, if there is a tumor in the pyloric segment of the stomach so as to encroach upon the stomach, causing obstruction, there is apt to be extensive dilatation of the stomach. On palpation, we find no evidence of disease in the anterior aspect of the stomach, over its largest curvature; but when we come to the region of the pylorus, there is a distinct, hard, irregular, oval body discovered. This is somewhat movable, not tender upon pressure, and, from its position, its size, and its mobility, it strongly suggests thickening about the pyloric orifice. I dwell upon these points in the diagnosis because we shall endeavor to make use of a positive means of diagnosis in this case.

When, in any case, there have been long-continued symptoms of gastric irritation, and we find a positive thickening of the walls of the stomach or an isolated tumor, there is, of course, little else to do but recognize the presence of a neoplasm. These are for the most part malignant growths; and when limited to the pylorus, as in the present case, they are usually scirrhus in type. Scirrhus of the pylorus is one of the most common forms of neoplasm of the stomach. If we accept this demonstration as conclusive, you will at once see that we have to deal with a wholly different condition from what the man has presented in the past. The patient's wife tells us that, three years ago, this man was in a lower state of health than at present; that the vomiting was as frequent, the pain was as urgent; and that the emaciation and debility were even more marked than at present; and yet from this condition he recovered and returned to his usual health. It is manifest that he could not have had scirrhus of the stomach at that time. While in this condition there may be temporary improvement, there would not be this return to general health that has been reported.

Can it be that the man had gastric ulcer with aggravated gastric catarrh, and that he has now fallen into a more serious condition? or is it possible that there may be another condition which has grown out of the former attacks?

Is there any other condition of pyloric thickening and obstruction with tumor formation which is not malignant in its nature, but which may have its origin in such conditions as have been described in this case? In your autopsies, you will occasionally meet with fibroid thickening of the walls of the stomach about the pyloric orifice. The walls are thicker and denser and offer some obstruction to the passage of food through the pylorus, but in this country I think that we comparatively rarely meet with cases of very highly developed pyloric stenosis due to fibroid thickening. We certainly do not meet with such marked cases as are reported from abroad. I have been struck with the number of cases reported from Italy, in which the patients presented symptoms identical with those which this man has suffered and in which the lesion has been found to be non-malignant, fibroid alteration in the pyloric ring. These cases do not necessarily result from syphilis, and in this case there is no history of syphilis. The condition sometimes follows protracted gastric irritation. The habit of rapidly bolting coarse, harsh food, may set on foot a slowly progressing catarrhal change, invading the deeper layers of the walls of the stomach, inducing a fibroid change in its substance, with the subsequent development of all the symptoms of the pyloric obstruction.

Is it possible that in this case there has been a process of this kind? That this man eight years ago had a severe gastric catarrh; that three years ago there was a greatly aggravated condition which ran into some organic change of the deeper layers and perhaps ulceration; that following this there has been a gradual fibroid induration and contraction about the pyloric segment, and that now we have to deal with the mechanical condition resulting from this change? I need not say that this is not merely an interesting subject for discussion, but it is a matter which concerns this man's life, and upon our decision of this question will be based our opinion of the future of this case and our whole course of action. If we had reason to believe that this was a fibroid contraction of the pylorus, no one could resist the temptation to perform laparotomy and then to open the stomach

and stretch the pylorus, or make a fistula or resect the pylorus as seems best. It would be impossible to allow this man to starve before our eyes without making an attempt to save him. If on the other hand there is a malignant growth, palliation is all that we could hope to accomplish.

Have we any means by which we can decide this question positively? At this point we are brought face to face with results of chemical tests of the secretions of the stomach in certain conditions of disease. In the diagnosis of these conditions, microscopical examinations have conspicuously failed. It was once thought that the presence of certain fungi in the matters vomited was demonstrative of cancer, but it has been shown that their presence is simply indicative of the occurrence of fermentation in the retained contents of the stomach. We are now studying the secretions of the stomach chemically to see whether or not there is any demonstrable chemical change whereby we can say that in one case cancer is present and in another that it is not. Riegel has found in his observations upon this subject that in the secretions from the stomach in gastric cancer, hydrochloric acid is not found, while in gastric ulcer the acid is always in excess. This statement is based upon the study of a very large number of cases. The observation has been repeated by other observers, and the result is in favor of Riegel's statement. I shall to-day practice lavage or washing out of the stomach, and have the matters removed, tested for the presence of hydrochloric acid. If we have in this method a constantly reliable means of diagnosing between cancer of the stomach and other gastric affections, we have made a great step forward. This man this morning took a mixed meal as recommended by Riegel; consisting in this instance of an egg, milk, and flour gruel. My own fear is that this is a case of cancer of the pylorus and that the former attacks were of a wholly different nature from the present one.

Two of the tests employed to detect the presence of hydrochloric acid in the contents of the stomach are methyl violet and Congo red. The presence of a minute trace of hydrochloric acid

changes the violet color of the one and the red color of the other to a blue. The addition of a portion of the contents of this patient's stomach fails to cause any change. We shall not, however, base any conclusions upon one test, but, during the coming week, we shall repeat the washing out of the stomach and the examination of its contents.

PROBABLE ULCER OF THE STOMACH.

The next patient is H. L., 36 years of age. He had scarlet fever when a child. He had syphilis eight years ago and since then has been healthy. He has not used alcohol to excess. The present illness began fifteen months ago. It began with pain in the stomach, and this remained for six months. After remaining absent for one month it returned. During this time he has been failing in flesh and strength, and suffering with spells of pain in the epigastrium. Two months ago, vomiting began, and since then he has continued to vomit, usually one hour after eating. The bowels have acted irregularly. During the past six months he has lost between thirty-five and forty pounds in weight. He occasionally rises at night to pass water. He has had night-sweats. The skin is of the natural color without cachexia. The tongue is large and flabby and marked by the teeth. The examination of the urine reveals no sign of organic disease of the kidney. There is no evidence of organic disease of the lungs. As a rule the temperature has been normal; but once during the past week the temperature went up to 103° for one day. There is no cardiac lesion, and neither the liver nor the spleen is enlarged. The belly is flaccid and there is no tenderness on pressure. There is some increased resistance in the epigastric region probably due to muscular action.

The symptoms in this case pointed to organic disease of the stomach, and we determined to apply the test which I have just described; but unfortunately, on the morning that the test was applied, the patient complaining of some acidity of the stomach, was given a dose of bicarbonate of soda with his breakfast. While it is perfectly possible that hydrochloric acid may have been absent from the secretions of this

man's stomach, the fact that none was found does not prove it, for it may have been present and have been completely neutralized by the alkali. This emphasizes the necessity for care in the application of this measure. We should base no opinion in any case upon a single examination. It will of course be necessary to repeat the observation in this case.

This patient has never vomited blood. *Hæmatemesis* has considerable diagnostic value. The vomiting of blood of course indicates rupture of the capillaries or a solution of continuity of the lining membrane of the stomach. It is therefore one of the indications of the existence of ulceration. This ulceration may be simple or malignant. Sometimes the vomiting of blood results solely from excessive engorgement of the vessels depending upon mechanical obstruction to the escape of the blood. One of the causes of vomiting of blood is cirrhosis of the liver, where the obstruction in the portal circulation dams the blood back upon the stomach; the capillaries become over-distended and rupture, resulting in the escape of a large quantity of blood. Where the blood comes from a lesion of the stomach itself, as I have already said, the ulceration may be simple or malignant. There is something to be learned from the character and the amount of blood vomited. In simple ulcer of the stomach the vomiting of blood is more common than in malignant disease. The blood is not apt to be much changed by the action of the gastric secretions, as it is usually brought up soon after it escapes from the vessels. In gastric cancer, particularly where there is obstruction, the blood is subjected to the action of the gastric juice, and is apt to be vomited in the form of little black granules which resemble coffee grounds. You can not however base a positive diagnosis upon these distinctions. You may indeed have simple ulcer of the stomach, or gastric cancer may run its entire course to the fatal end, and without a single trace of blood being vomited. Its absence in this case, while suggestive, proves nothing.

A word with reference to pain. Pain is usually much more marked in simple ulcer than in cancer. In the former

affection it is apt to be associated with some tenderness on pressure over the region of the stomach. With regard to pain there is, however, the greatest possible difference. In some cases of cancer the pain is extreme, while in others no pain whatever is complained of; in this case, as we have heard, the pain is extremely marked.

The act of vomiting is common in both conditions, but is more frequently absent in cancer than in simple ulcer. Where there is cancer about the pylorus with increasing obstruction, vomiting is certain to appear, and finally it occurs with regularity because very little can escape into the bowel. There may be cancer of the greater curvature, or of the anterior wall of the stomach, and not a single spell of vomiting occur from the beginning to the end. Vomiting is rarely absent in gastric ulcer. In cancer, the vomiting is more apt to occur at considerable intervals after meals, or without any reference to eating. In simple ulcer vomiting is often induced by the taking of food. The ingestion of food excites pain, increases the irritation, and the desire to vomit comes on, and the patient is not relieved until the stomach is emptied.

Constipation is naturally present in these cases, on account of the fact, that the stomach does not retain what it receives. It is often aggravated, as in the previous case, by the use of large doses of morphine to relieve the pain. With reference to the use of opium in these cases of disease of the stomach, there is much to be said against it, but you will often be forced to yield. Constipation is apt to be more marked in cancer than in simple ulcer, especially is that the case where the cancer is pyloric in its seat and there is actual mechanical obstruction. Under these circumstances the constipation may become obstinate. In ulcer, although the bowels may be torpid, they are usually acted on with comparative ease. As the ulceration in cancer progresses there is often a channel opened through the mass obstructing the pylorus, so that there may be natural movements of the bowels, or even diarrhœa from the pyloric incompetence permitting the peptones to pass directly into the bowel, where they stimulate peristalsis.

This patient has never had obstinate constipation.

In simple ulcer of the stomach, you find no thickening, no hardening, no tumor in the epigastric region; and a careful examination in this case has revealed nothing abnormal. In this case the evidence is in favor of ulcer rather than of cancer of the stomach. What we have learned does not prove that this man has ulcer of the stomach, but there is great reason to suspect that he has it, and that it has been undergoing a process of healing. We shall, however, have to consider whether or not simple chronic catarrhal gastritis without ulcer would be sufficient to explain all the symptoms. In a case of this kind, where the symptoms have been so grave, we should give the man the benefit of the doubt, and treat him on the supposition that there is ulcer. If the case is one of simple gastritis, the treatment adopted will cure it all the faster; and if ulcer should be present, the neglect of appropriate treatment may lead to disastrous consequences.

I shall treat this as a case of simple gastric ulcer by rest in bed, by a rigid milk diet, and by the administration of remedies calculated to facilitate the healing of the ulcer.

I shall have the examination of the contents of the stomach of both these cases repeated, and on a subsequent occasion shall report to you the results.

THE SYMPTOMS, DIAGNOSIS, PROGNOSIS AND TREATMENT OF MEDULLARY CANCER.

FREDERICK N. HYDE, OF CORTLAND, N. Y.

Read before the Third District Branch of the New York State Medical Association.

IT may be said that the name Medullary Cancer does not imply a sufficiently definite meaning. We concede this, but on the ground that while there is some vagueness in the meaning of the term, the varying appearances, in the color, consistence of its tissues and textures, in a given specimen of the tumor during the stages of its development as well as in its modes of degeneration, it answers all the purposes of surgical inquiry better than one restricting its name to more definite meaning, as "cerebriform, encephaloid, or

cephaloma," terms often applied to designate the disease in question. We mean that the latter do not answer so correctly to the disease as the term medullary. When we examine a specimen after removal by operation from the patient, how often do we find any continuous brain-like, encephaloid, or cerebral tissue evident to the eye, or when aided by the microscope?

There may be in certain portions of some of these growths a slight resemblance to brain tissue, but only here and there, and then but a faint one. In referring to the consistency of medullary cancer, it is quite properly called the soft cancer, which is in the main correct; but there are examples enough to require that they should be grouped as soft and firm medullary cancers, but not having in the latter case the hardness which is characteristic of the hard or scirrhus cancer. It can be said of the growth of medullary tumors (except in their earliest type) that it is not characterized by a limited boundary line, but its increase of volume is by infiltration. Especially is this true of the softer variety. Herein, *i.e.*, in consistence, is a marked symptomatic distinction between the medullary and scirrhus cancer. We shall see further on that another difference of diagnostic significance is the respective seats and textures chosen by the disease: as in the intermuscular spaces of the limbs much oftener than the trunk. This has been verified in my experience in the case of some marked examples of the disease, beginning quite below Poupart's ligament, but in their growth involving the femoral and inguinal regions. Another symptom is the elasticity of medullary tumors, so often taken for slow fluctuation, and too often opened in good faith by the surgeon, expecting to see pus freely follow the withdrawal of the bistoury; but, to his discomfiture, he sees only blood or bloody serum, and in either case the discharge is free, and does not cease flowing as readily as he could wish.

Vascularity and rapidity of growth are symptomatic of medullary, but not of hard cancer. The blood vessels in the medullary, whether of the soft or firm kind, are larger and thinner walled than in the normal textures: both arteries

and veins. Their walls are softer; especially in the muscular coat, which becomes so impaired in function by infiltration that both the contractile and retractile office is lost; so that both the natural and artificial hemostatic resources are of little avail when lesion of blood vessels occurs within the limits of the morbid growth. Medullary tumors grow around and into the sheath and the outer coats of the larger arteries, as witnessed by me in the cervical region, in which the carotid artery was crowded upon all sides by the cancer; the same in the axilla, the axillary artery being firmly imbedded in the cancerous growth.

An instance is fresh in my memory, of a similar relation of the femoral artery to the tumor in the femoral region, into which a knife was passed deeply, the operator believing its elasticity was fluctuation and expecting to see what he had predicted—a free discharge of pus—but instead, a profuse bleeding followed, which could only be imperfectly controlled, causing the premature death of the patient. It cannot be said of the hard cancer that it is specially vascular, but that its average is a little less so, than in the normal structures around the growth; and as it grows it is more apt at first to press aside the larger vessels; but in its progress they become imbedded in the cancer structure, while the adjacent tissues are atrophied, which is never the case in the soft cancer. This is well seen in cancer of the female breast, in which the gland tissues waste in scirrhus; but in the soft cancer, the whole gland structures enlarge by infiltration, giving it much greater volume than when it is the seat of the hard cancer, so prone to grow in this gland.

The medullary tumor in its earliest growth appears as a small, round, kernel-shaped, movable body; especially is this so in the soft form. These characters are soon lost; as they grow they become more lobulated. Now it is that the growth reaches into the muscular spaces; and if it should be upon the toes or bones of the foot, the morbid tissue will appear between the bones, and in its progress infiltrate the periosteum, and a little later the bone tissue. This disease is painless as a

rule in its growth, so long as it is free from its own disease or morbid changes; for it must be remembered that cancer has its own diseases, and they always appear earlier in the medullary than in scirrhus cancer.

The freedom from pain in the progress of this disease until it has attained large size, is to be kept in mind. My own records show numerous examples confirming this statement, even in cases where large nerve trunks are imbedded in the growth, as in the neck, axilla, humerus, thigh, and leg: an evidence of their loss of normal function from their infiltration with cancerous substance. It is only recently that a middle aged man came to see me with this form of growth occupying most of the forearm; but slightly lobular, color of the skin normal, not tender to the touch; his general health good; countenance natural; could labor, except that the hand and swollen arm were clumsy. My records show that the brief account of the case here given is nearly the same in twenty patients, between the ages of sixteen and fifty-eight years, who were seen by me before any signs of the disease or degeneration in the tumors, or marked constitutional failure, had appeared. Eleven of these cases were males, and nine females. Of these, seven were in the arm and forearm, nine in the thigh, two in the abdominal parietes, and two in the foot. In each of these examples, the elasticity of the tumors was marked. The cachexia, so well shown in hard cancer, is generally absent in the medullary, until the signs of its diseases or degenerations appear, when it develops rapidly.

There is a difference in the age at which the medullary cancer appears, and that of the scirrhus; the former begins in early life, while the latter never appears in persons under twenty years old, and rarely before the twenty-fifth year. The medullary is common in young life. More than a fourth of the cases occur before the twenty-fifth year of life. In my record of seven cases on this point, four were aged about three years, another one and a half, the other four under six years. Two of the former were in the eye; the other two were in the liver, as shown by autopsy.

Of the other three, one was in the mesentery, the others in the ankle and foot. The entire number of patients with the disease were under sixty years old. Occasionally it will occur at a later age; but, in my own records, only two as old as seventy are found: one of them in a lady, the tumor situated in the upper and front part of the thigh; the other a male, the disease being in the leg, involving the bones. My experience in the older subjects of the disease, when ulceration and sloughing are progressing, is that the bleeding is more profuse, the sloughing is in abundant fungoid masses, making a typical example of the "fungous hæmatodes" of the earlier writers. There are some sites in which the medullary cancer appears more often than the hard. In this I am sure the experience of other surgeons will agree with my observations. In its place of primary attack, one of its favorite sites is the testicle.

In this treatise my observations are based upon thirty cases: the youngest patient being eight, the oldest sixty years old. Two-thirds of the cases were in patients under thirty five years of age.

In these cases the disease appeared oftener in the femur than in any other bone, as shown in my records. These cases included four per cent. of the articular surface of the head and two per cent. of its lower articulating surface. The arms and legs have shown the disease nearly as often as the thigh, it beginning in the intermuscular spaces. The eye, both in early childhood and middle life, has been often the primary seat of the medullary, but never, under my notice, of hard cancer. The mammary gland of the female, so often the site of primary hard cancer, shows but a small per cent. of medullary growths. I am not certain that I have ever seen more than one genuine primary medullary cancer in this gland in the female, and well remember, in the operation for its removal, that it required fourteen ligatures to control the bleeding. As illustrating the comparative frequency of the soft and hard cancer in given textures, my records on this subject show the removal of fifty-seven hard cancers in the mammary gland, against, as already stated, but one extirpation of the medullary disease. It will be

remembered that against this number of removals of hard cancer from the female breast a considerable percentage of cases were rejected as unsuitable for removal. My experience in removing medullary disease of the female breast consists mainly in the extirpation of the recurring disease after the removal of hard cancer. The returning disease, after one removal of the scirrhus cancer, acquires more the characters of the medullary; and, succeeding the third removal, all the appearances were those of marked, degenerating medullary cancer, whether it recurred in the primary seat or in more remote textures. Beyond these localities, as the chosen sites of the disease in external structures, no special preference has been noted by me.

Of this disease in internal textures my notes show that it is almost exclusively met with in the abdominal structures. In twenty-four cases of medullary cancer, twenty were in the liver, two in the spleen, and two in the mesentery. The progress of the disease in these visceral structures is more rapid than in the external textures, and the mean duration of the life of patients is much shorter. Autopsies show that as soon as degeneration of the tumors begin, the cachexia is strongly marked, the patients fail more rapidly than when the disease is in the peripheral structures. The age of persons with soft cancer of the abdomen corresponds with that of the external disease. While examples of hard cancer of the liver have been reported, it has never fallen to me to witness by autopsy an instance of hard cancer of the liver. In the reappearance of the disease, after thorough extirpation, its multiplication may be seen in any other structures, as illustrated in an example under my care, of removal of a hard mammary cancer, including the axillary glands. The wound healed quickly. In the fourth week it reappeared upon the forehead and side of the head opposite that of the removed tumor. It now showed the medullary form, and it was again cleanly removed; but, before the wound had quite healed, it reappeared in the upper part of the left femur, progressed rapidly, the patient weakened hourly, and while the nurse was gently moving her the bone

separated, after which the patient lived but a few days. The autopsy showed the typical pathology of destruction of bone by medullary cancer, including the head, neck, and the upper half of the femur. We must refer more minutely to the varying phases of the textures of a developing soft cancer than in the beginning of this paper. There can be seen on section of this tumor some fibro-cellular tissue with partitions of a capsular kind, which may be traced among imperfect tissues and other structures, and, when this is divided, portions of the mass will ooze out, showing the different textures, their color and consistence, that help to make the mass, parts of which are soft, brain-like apparently; others more firm, varying in their toughness to a softness that will sustain only the slightest pressure. The more degenerate the tumor, the softer and the more pulpy and spongy it feels. In considering the section of a medullary growth, we should not forget that its appearances may be much changed, if they have been the seat of any of the diseases common to this cancer, sure to come if left to its legitimate progress (excepting only the variety which some pathologists speak of, viz., withering, which I have never seen), such as inflammation, hemorrhage, ulcerous disintegration, and necrosis of tissue.

When any of the above diseases have appeared, then what is generally considered as a reliable test, the presence of cancer juice, will not represent the true exudation and is then of no avail in diagnosis. When the average lifetime of medullary cancer is compared with that of the hard, the clinical history of the two forms of the disease show that persons with soft cancer have but a little over the average of lifetime of patients with hard cancer, which is two years and a fraction less than a fourth; while persons with the scirrhus have an average life of a fraction more than four years from the beginning of the growth. From access to tables upon this point, compared with my own record of patients and the history of cases furnished by neighboring practitioners, they exhibit a corresponding difference in the length of time that persons live with the soft and hard cancer. These data includes cases which

received and others which had no treatment. Bearing directly upon the prognosis of medullary cancer, how far does treatment influence the results to which we have referred? The answer to this question furnished from my records is one of humiliation to the surgeon. For when he sums up the results of all forms and plans of treatment, including extirpation and amputation, he is obliged to admit that the average footing shows no marked prolongation of life.

But for the few exceptional examples, in which we know that removal of the disease lengthened the life of cancer patients, and made their lives more tolerable—as an offset to so many cases, in which he realizes that removal, either by dissection or amputation, failed to yield comfort to the patients, but possibly shortened life, he would be obliged to decline operative interposition.

Never has the subject of cancer occupied more earnestly the studious attention of surgeons, than in the last decade in all countries where the medical sciences are cultivated; animated by the hope and belief of eminent surgeons, that the achievement of its permanent cure was near at hand.

This opinion has been stronger, since its removal has embraced the practice of early and more sweeping extirpation of all tissues, not only of the glands in the close proximity of the primary site of the tumor, but, extending the operation to more remote lymphatic textures. Our distinguished countryman, the late Prof. Gross, as most of you know, became, in his later professional career, a most earnest believer in the early local nature of cancer, both soft and hard, and with the latter plan of its removal, to which allusion has been made: he believed that it could permanently be cured if the extirpation were made early enough. But this good man and great surgeon did not survive to see his prediction verified. He did see, as other surgeons have, and are occasionally witnessing to-day, where the removal was made early enough under conditions the most favorable for the operation, a longer period of non-recurrence, and good health of the patients.

In the diagnosis of medullary cancer

it has been necessary to institute some comparisons between it and the scirrhous tumor to keep more plainly before us the difference in the respective morbid growths, as bearing upon the prognosis of the medullary variety. We have seen the shorter average of persons with soft than with the hard cancer. All these portions of their clinical history are to aid us in their treatment. The shorter life of medullary cancer, and a proportionate shortening of the life of patients with the disease, will limit the operation of extirpation to a smaller number than in hard cancer, which grows slower of itself and allows an average length of life to nearly double that of soft cancer. I shall refer to no other treatment than extirpation; but would speak a word of caution against invading the tissues of a medullary tumor, which will not tolerate the smallest lesion, for its textures are non-reparative. It is urged that the growth should be explored as a diagnostic measure. I answer, except where this has been done in the earliest life of the tumor (too early to be of any value), it has been attended with harm only. I have never known an instance in which the little harmless looking puncture remained healed; but, on the contrary, it leads to a premature development of the degenerating processes of the disease. Much less, should the surgeon thrust the bistoury into the growth in question, believing that he had detected deep fluctuation when it was only elasticity. While the title of this paper would literally restrict us from the consideration of any other morbid growths, the analogies of the soft and hard cancers make it necessary and proper to consider them as a basis, for calculating the proper selection of cases of soft cancer for removal. The difference of the two forms in the length of life is to be borne in mind, that both patient and surgeon should not be disappointed by having mistaken the average period of recurrence, which is warrantable when we remove hard cancer. Looking at the recorded results of removal of medullary disease, it is true it restricts us to a pretty barren field for operative interference, but still the propriety, as well as necessity for removing soft cancer under given

circumstances, is not doubted. We are obliged to say of the operation, that the individual case must determine its necessity. We must consider the condition of the patient to bear the operation, the chances of a good healing of the wound, which is more likely when the tumor grows slowly; while neither earlier or later age of patients is favorable for removal. The absence of constitutional disturbance, the non-implication of important anatomical structures, vascularity, the chances for entire extirpation of all the morbid tissues, the absence of infiltration into adjacent textures are conditions to be carefully sought and weighed before the operation is to be made. In the earlier life of a medullary growth it has a more discontinuous character, so much so as, now and then, on dissection, to show a quite well defined boundary line, and appear quite free from infiltration.

This is the period of its progress, in which its removal is most complete; and, if our diagnosis be correct, the extirpation may be so perfect as to insure a long immunity against recurrence; but if it never reappears at the site of its removal, or in any other part of the body, then we have removed an innocent growth. The period of marked cachexy would contraindicate operating; for it would show that both the adjacent and more remote tissues were infiltrated, and give evidence of incipient degeneration of the tumor, and diffusion of cancer-cells in all the tissues.

There are conditions of patients with this disease which furnish frequently recurring bleedings, when the question of amputation as a palliative arises (all other means of controlling the hemorrhage failing), when the operation can be made far enough above or on the cardiac side of the tumor. It is objected to amputation of the extremities that there is a morbid state of the vascular textures, and admitting that the operation can be done far enough above the tumor, or diseased sloughing mass, as it is now, and the arteries ligated, the same liability will exist for premature separation of the ligatures. We say, when the sloughing fungoid masses are well away from the patient, with their rapidly exhausting discharges

the patient being placed in a less deadly atmosphere, he is given the only possible chance of arousing the weakened nutrient functions. The amputation should never be attempted without testing the patient's temperature, and if it prove to be ninety-six degrees or below then the operation is out of question.

In the following conclusions I have summarized the views expressed in this paper.

DIAGNOSIS OF MEDULLARY CANCER.

1st. Medullary cancer appears in early child-life, and rarely in patients over sixty years old.

2d. Hard or scirrhus cancer is never seen in persons under twenty years old, and rarely as early as twenty-five years.

3d. Medullary tumors never have the stone-like hardness of the scirrhus cancer, nor its irregular and jagged outline.

4th. The medullary, unlike the scirrhus, is highly vascular, develops rapidly, maturing in nearly half the time of the hard cancer.

5th. Persons with soft cancer do not show the cachexy so early as in the hard; it appears suddenly at the time when its diseases or degenerations are manifest, and then becomes strongly marked.

6th. The medullary as a rule grows more rapidly than the sarcoma, is much more vascular than the latter, its boundaries less distinct. Sarcoma is scarcely known in childhood.

7th. The medullary growths can be distinguished from the inflammatory swellings by the entire absence of the symptoms and signs of the latter during their normal life.

8th. None of the innocent tumors have so marked a preference for special localities and textures as the soft cancer, as noted in the early portion of this paper.

9th. The most reliable diagnostic sign of medullary cancer is its marked elasticity, not so plainly detected in its earliest growth as a little later, when it enlarges more rapidly.

10th. As soon as the growth becomes developed sufficiently to become the subject of surgical opinion, in a large majority of the cases the elasticity can be detected.

THE INFLUENCE OF SEA-AIR ON SYPHILITIC PHTHISIS.

BY ROLAND G. CURTIN, M.D.,
Of Philadelphia.

[Read before the American Climatological Association, June, 1887.]

MY motive for intruding upon your valuable time is merely to arouse interest in the investigation of the climatology of that disease which is the most important coming within the domain of this or any other society for consideration. I refer to phthisis. In looking over the literature of the subject, we find a surprising latitude and diversity of opinion as regards the proper climate for consumptives. Occasionally we find physicians giving their testimony in favor of a seaside residence for their consumptive patients, sending them to Florida, the New Jersey coast, or like localities; while the large majority of practitioners are very decided in their opposition to such a recommendation. Where there is such a diversity of opinion in regard to the climatology of such a common disease, there must be something for us yet to learn on this subject.

In almost every medical man's experience, he meets cases of phthisis that seem to be benefited by sea air. One gentleman with lung disease finds that his condition improves only while at sea on his yacht. On shore he "runs down," and the disease progresses unfavorably. Again, another patient, apparently similarly affected, is made worse by a sea voyage or a residence at the seaside. Why is it that such a diversity of opinion and experience prevails? Perhaps the cases I here report may be a means of solving this vexed problem. The usual experience with patients afflicted with phthisis, when sent to the seaside, is that they improve for one, two, and, in some rare cases, three weeks. They then begin to run down rapidly; so that, at the end of a month, they are worse off than when they first reached the sea air. Following this, the disease progresses much faster than if they had remained away from the ocean. The improvement first noticed is due probably to the change of air, food, and scene; but the diseased lungs do not long withstand the disadvantages of the condensed, moist, and stimulating salt air.

It has been my lot to observe five cases of what seemed to be syphilitic lung disease, in which sea air was apparently advantageous as a remedial agent.

Case I.—A young physician, while resident in a Philadelphia hospital, contracted a chancre; following this he had marked symptoms of constitutional infection: papular eruption, mucous patches, falling of the hair, osteo-copic pain. While these symptoms were progressing, he was seized with a cough, had some fever and evidences of consolidation at the apex of his right lung. Later the consolidated lung showed signs of breaking down. The constitutional symptoms were slight, and a diagnosis of latent pneumonia was made. He was slowly breaking down in health and strength, and the lung-tissue showed signs of increased invasion around the diseased part. The physical signs were tubular breathing, large and small bubbling, pectoriloquy and, at times, a cracked-pot sound could be elicited by percussion. He was so persistently running down, notwithstanding specific, tonic, and other supportive treatment, that, desiring to be among his relatives who were across the sea, he took a slow steamer to go to them. He was surprised and delighted to find himself greatly improved in health when he reached the other side. Dyspnoea, which had been a marked symptom, was greatly diminished. After remaining a while on shore, he found that his old symptoms were returning. He, therefore, took the position of surgeon on a steamer running between England and Brazil, by which months were required to complete a voyage. When again on the sea he noticed the same improvement that he had experienced previously while crossing the ocean on the way to his family. He made voyages continually for three years. At the end of two years I examined him, and found about the same amount of induration in his right lung as when he left this country. The cavities had contracted somewhat, and were perfectly dry. He had gained in flesh and strength, and although there was an occasional dry and hacking cough, he had no expectoration. Dyspnoea

was not at all troublesome. One year later he returned to this country and abandoned the sea. His condition at this time was much the same as just described. As soon as he began to live on shore the old disease seemed to take up its march, and in about a twelve-month he died with symptoms of advanced phthisis, associated with tertiary symptoms.

Case II.—A. C., a sailor, 38 years old, a native of the United States. He was an inmate of the Philadelphia Hospital. Four years before admission he had contracted a chancre, which was followed by unmistakable evidences of constitutional infection. A few months later he had some lung trouble, as shown by a cough, fever; later by dyspnoea on slight exertion, expectoration, and progressive emaciation. Being impecunious, the only avenue that presented itself for making a living was the vocation of a sailor. He accordingly went to sea, and improved in flesh and strength; respiration was easier. This was independent of any treatment. Subsequently he was unable to live at his home (a locality removed from the sea) without a marked increase in his pulmonary symptoms, even with appropriate treatment. He came to Philadelphia, began to drink freely, and soon had to take refuge in the hospital, where he died. Post-mortem examination revealed chronic lung disease, without evidence of tubercle.

Case III.—Mrs. E. died at the age of 29, having been married ten years. She had never been pregnant. Her history, antecedent to marriage, was as follows: She menstruated first at the age of eleven years, and had dysmenorrhoea always afterwards. At 19 she was married to a seafaring man of rather loose habits, who had contracted venereal disease at least once after marriage. She had never been very rugged, and was subject to dyspepsia and diarrhoea at times from her early girlhood. She had had a cough from early life, but this did not affect her general health until about the time of her marriage. After marriage, she had several attacks of lung disease, of rather indefinite character, each attack leaving her in worse condition than before. Dyspnoea

was always a marked symptom. She also had osteocopic pains. During the last year of her life she had ozena, with involvement of the bones of the nose, and destruction of the septum, almost down to the lower margin. During the last four years of her life, it had been her habit to go to the seashore for several months in the summer. While there, night sweats would disappear; she would improve in flesh and strength; have less dyspnoea and less expectoration; her appetite would improve and all her symptoms ameliorate, and this was entirely independent of any medication.

Case IV.—C. H., in early life, had chancres, followed by secondary and then tertiary symptoms. He then had an attack of sub-acute pulmonary disease, and subsequently exhibited evidences of phthisis as indicated by physical signs: chronic cough, with purulent and frothy expectorations, occasionally a rather copious hemorrhage, night sweats, slow emaciation, marked dyspnoea, accompanied by the manifestations of tertiary syphilis. While the last named conditions were present, he was induced to leave his mountain home and go to an island on the New Jersey sea-coast. While at the latter place all medication was suspended. At the end of a week's sojourn there his condition was markedly improved in every respect. He was able to eat with a relish, sleep well, and go about without the fatigue which had kept him in almost a quiescent state previously. He extended his sojourn for two months, during all of which time these favorable conditions continued.

Case V.—E. C., a man, contracted syphilis, and soon afterwards had lung affection, which left behind a vomica at the apex of his right lung. A few years afterwards he married, and as a result of this union he had five children. Of these children, one daughter began to spit blood at 12 years of age; she afterwards expectorated a considerable quantity of purulent matter. Following this there was a general running down of the powers of life, associated with some expectoration and considerable emaciation. This continued for about a year, when her health began to improve, and she remained quite well

until after the birth of a child, which happened when she was 24 years of age. From this time she steadily failed, and died when her child was about a year old. I made a post-mortem examination upon the mother and her father, and found at the apex of the right lung, in each case, conditions identical: a cavity with a smooth surface, the size of a small orange, and lined with old, degenerated epithelium. A brother had a cough with hæmoptysis while a half-grown boy, followed by much the same symptoms as mentioned in the case of his sister. He is still living, and is said to have weak lungs.

Another brother, at the age of 18, had a cough, and seemed to be in danger of dying of consumption. He went to sea and recovered his health to a great extent. Afterwards, trying to live on shore, he found the symptoms of phthisis returning. He again went to sea, with precisely the same beneficial results as previously experienced. He remained on shipboard almost continuously for three years, after which time he came ashore in mid-winter, was seized with pneumonia in the right lung and died. This case, which seemed to be one of inherited syphilitic lung disease, was benefited by sea-air, without any specific treatment.

I do not claim that I have positive proof of the origin of the lung disease in the cases noted. My reasons for believing the first four cases to have been syphilitic phthisis are,—

First. No symptoms of marked pneumonia preceded the chronic phthisis.

Second. The lung symptoms followed syphilitic contamination and constitutional symptoms.

Third. The disease was to some extent influenced by specific treatment.

Fourth. There was no tendency to tuberculosis.

Case 5 seemed to be hereditary specific lung disease. How shall we determine a case to be one of syphilitic phthisis?

Dr. Wm. H. Porter, in an interesting and instructive article in the *Quarterly Bulletin of the Clinical Society of the New York Post-Graduate Medical School and Hospital* of August, 1885, says:

"The diagnosis is based upon five principal signs and symptoms:

"First. The abundant expectoration, without any signs of softening of the pulmonary tissue.

"Second. The weak and debilitated condition without marked emaciation and the good rational history of phthisis.

"Third. Pronounced dyspnoea without any evidence of a cardiac or pulmonary obstruction to the circulation.

"Fourth. The peculiar pain and the reaction to pressure upon the sternum and tibial crests.

"Fifth. The ready response to treatment is another element in the diagnosis."

He also noticed that the tubercle bacillus was absent in the cases examined by him.

What conditions of the atmosphere prevail at the sea level which are not present at an elevated location elsewhere?

First. It contains more moisture.

Second. It is denser.

Third. It contains some degree of saline impregnation.

Fourth. It also contains a small quantity of iodine.

What influence would these conditions have upon the diseased lung-structure?

The condensed atmosphere and the dampness, associated with the saltiness, would probably increase the circulation of blood in the diseased lung,—thus hastening the breaking down process in a tubercular lung; while, perhaps, in the syphilitic lung, the increased circulation might exert a favorable influence upon the disease by increasing the nutrition of the lung. The constant inhalation of the minute amount of iodine could perhaps assist in influencing the disease. (A physician informed me that he had observed, at the sea-shore after a storm, that the starch in his shirt had turned blue from the iodine in the air.)

Dr. Porter, in his paper referred to (in which he gives his observations on one hundred cases of syphilitic lung disease), states that in many cases the dyspnoea is not due to congestion or stagnation of blood in the lungs.

The cases which I have given are offered in the hope of stimulating observation in this direction, which may result in removing doubt as to the

efficacy of sea-air on syphilitic lung troubles.

These cases certainly prove that, in some instances, phthisis complicated with constitutional syphilis is benefited by sea-air.

With the strides now being made in diagnosis, I am sure that the developments of the near future will be such as to enable us to determine positively syphilitic lung diseases. Then the question raised in this paper can be definitely settled.

HOSPITAL NOTES.

ENLARGED SPLEEN.—Prof. Da Costa considers that there is nothing better than the fluid extract of ergot in half-drachm doses, given three times a day, for the enlarged spleen of chronic malarial poisoning.

QUININE FOR SEPTIC POISONING.—Dr. Clara Marshall prescribes at her clinic at the Philadelphia Hospital, in the treatment of septic poisoning, quinine in large doses to suppress the fever, and as much also of digitalis as can be well borne to assist in maintaining the heart's action until the poison is thrown off.

IN CASES OF PAINLESS ENLARGEMENT OF THE LIVER, in connection with malarial disease, Dr. Bruen gives from fifteen to eighteen grains of quinine, combined with iron and arsenic, during 24 hours before the remission. In a case of cirrhosis with enlargement of liver, Dr. Bruen ordered fifteen grains of potassium iodide, in a pint of water, the first thing on rising in the morning, with great benefit.

DIARRHŒA TREATED WITH THYMOL.—Dr. Bruen gives in cases of diarrhœa having seven or eight stools per diem, two and a half grains of thymol in a pill, one to be given every four hours, or fifteen grains in the 24 hours. He frequently gives larger doses of the thymol, commencing his treatment with lead and opium pills, and giving milk diet. He believes that thymol acts strongly as an antiseptic in diarrhœa, but is of no use in dysentery.

SYPHILIS IN INFANCY.—Dr. J. William White, in three cases of specific ulcerations in children, pointed out in his

remarks that the Hutchinson teeth are the permanent incisors and not the first set, as is generally believed. He recommends nourishing diet and absolute cleanliness, giving syrup of the iodide of iron, cod-liver oil, sometimes tonics, etc.; also one twelfth of a grain of calomel, with potassium iodide in doses according to age. He does not believe in routine treatment—that of burn! burning!! burning!!! He orders absolute cleanliness, and separation of the absorptive surfaces with absorbent cotton, the use of lead and opium.

TREATMENT OF CHANCROID.—Dr. J. W. White recommends at his clinic:

R	Acidi borici.....	3 i
	Zinci sulphatis.....	3 j
	Tinct. opii.....	f3 ij
	Aq. rose.....	f3 iv
M.	Fiat lotio.	

He says that buboes do not occur oftener than once in every three cases of chancre.

MALARIA AND BRIGHT'S DISEASE.—According to Prof. DaCosta, malarial poison causes certain forms of Bright's disease, and especially the catarrhal desquamative nephritis, which forms the large, white kidney. In the urine will be found tube-casts with a certain amount of epithelium, but not much oily or granular matter. If the tube-casts are granular, and there be oil and waxy matter in the urine during intermittent fever, we may be sure that the kidney disease existed before the onset of malaria.

INFANTILE SYPHILIS.—In cases of periostitis of the ribs, with formation of pus, in children of syphilitic taint, Dr. Deaver, of the German Hospital, gives iodide of potassium, and externally uses an ointment of belladonna and mercury. Later in the disease iron, quinine and cod-liver oil internally. If that fails to absorb the effusion he recommends evacuation.

TREATMENT OF SURGICAL SHOCK.—In shock of injuries, Dr. Deaver recommends lowering of the head; apply heat externally. He gives hot coffee, carbonate of ammonium and digitalis, to sustain the action of the heart, and he operates right after reaction.

DIARRHŒA.—In a case of diarrhœa occurring in a man seventy-two years of age, Dr. J. H. Musser prescribed:

R	Quinina sulphatis.....	gr. ij
	Masse hydrargyri.....	gr. ij
	Pulveris opii.....	gr. 4

M. Ft. pil. no j. Pro dosi. To be repeated three or four times a day.

DYSENTERY CAUSED BY LOCAL IRRITATION.—A woman came to Dr. Musser's clinic complaining of dysentery. An examination showed that the cause was retroversion of the womb. The lecturer stated that enlargement of the prostate is liable in a similar manner to cause dysentery in old men.

ACUTE CYSTITIS can be more quickly relieved by collinsonia combined with aconite and morphine than by the administration of any other remedial agents according to Prof. Shoemaker.

At the Philadelphia Hospital, Dr. Curtin showed the stomach of a man who had a large cancer in the pylorus. The lecturer called attention to the great distention of the viscus, owing to the difficulty in passing the ingesta through this orifice. In the last stages the food is retained for some days, and then vomited *en masse*.

DR. PORTER, at the same clinic, drew attention to a point in administering injections for gonorrhœa. The patient ought to be instructed to retain the injection by holding the head of the penis for five minutes at least, so as to allow the properties of the agent to take effect.

In cases of gonorrhœa with acute pain in the testicle, on careful examination this is often found to be due to a small hydrocele containing from one to three drachms of fluid. Opening the hydrocele with a small trocar or tene-tome will give instant relief.

DR. CURTIN says that he has effected the most benefit in the treatment of diabetes with cod-liver oil in tablespoonful doses one hour after eating. This is given with quinine, iron, arsenic and strychnine.

PROF. WAUGH speaks highly of calomel, gr. $\frac{1}{16}$, and powdered oyster shell, gr. ij, given every half hour, for vomiting in cholera morbus.

IN his lecture upon Asiatic cholera, Prof. Waugh recommended the following treatment:

Iced cloths to the abdomen, changed frequently; ginger ale as a drink, together with dilute phosphoric acid in large quantities; hypodermic injections of brandy, atropine or ether, to sustain the heart; voluminous enemata of tannic acid solutions, to be carried as far as possible up the intestinal tract. Hypodermic injections of cod-liver oil may be used to keep up the strength. Cramps in the muscles are relieved by large subcutaneous injections of saline solutions.

DR. J. M. BARTON had recently under his charge at the Jefferson College Hospital the case of a man with two penetrating wounds of abdomen, made with a broad knife. The case was seen three hours after the wounds were inflicted; the patient was under the influence of alcohol. There was considerable external hemorrhage. Upon the right side of the rectus muscle were seen two incised wounds which entered the peritoneal cavity in a diagonal direction, entering it about the median line. Under antiseptic precautions laparotomy was performed by Dr. Barton, and penetrating wounds of the liver discovered, the edges of which were united with interrupted suture of catgut. A penetrating wound of the transverse colon was brought together with the continuous Lembert suture. There was some blood in the abdominal cavity. After a mild attack of peritonitis the patient made a rapid recovery, and was discharged at the end of the third week.

IN MANY cases of shortening of the leg, producing lateral curvature of the spine and concomitant disorders, all that is necessary is to make the legs equal in length, as shown by Dr. Morton. The ordinary method is to put blocks under the foot affected, judging by the eye as to when equality is secured. But the eye is notoriously fallible, and it is especially liable to be deceived when there is a marked curvature. In order to make the length of the legs equal beyond a doubt, Dr. Sudduth suggests the following method:

Draw a line from one iliac crest to the other, apply to the line an ordinary

spirit level, put blocks under the foot until the instrument marks level; at which point the distance from each iliac crest to the ground must be the same.

HYDROCEPHALUS IN AN INFANT.—Prof. Da Costa introduced a child nine months of age, born without difficulty, but from the time it was three weeks old its head began to enlarge, until at present it is of enormous size, presenting a marked case of hydrocephalus without obvious meningeal disease. The child also has spina bifida, which, like the other, first appeared about the third week after birth.

The professor placed the patient under complete iodine treatment; iodide of potassium internally, and the compound iodine ointment to be rubbed in over the fontanelles. If no improvement results from this treatment, and no inflammation supervenes, he advised tapping.

HYOSCINE FOR CHOREA.—For a case of hemi-chorea in a young lady seventeen years of age, Prof. Da Costa prescribed hydrobromate of hyosine.

FOR CONTRACTION OF THE CERVIX, WITH RETROFLEXION OF THE FUNDUS UTERI.—Dr. Deaver, at the German Hospital, performed dilatation of the cervix. After the operation he used a five per cent. solution of carbolic acid as a wash, then inserted into the cervix a suppository of iodoform, five grains, and one grain of opium in the rectum. For deformity of the femur he performed osteotomy by the subcutaneous method; he made an incision down to the bone, inserted the osteotome, and used the hammer. After the operation he sutured the wound and applied an iodoform dressing.

DR. MCCONNELL prescribes in the acute stage of gonorrhœa:

R Potassii citratis.....	gr x
Tinct. aconiti.....	gtt j
Morphine sulph.....	gr 1-12 4
Surapis.....	3 j

M.—Take as a draught every three or four hours.

WITH hardly an exception, strabismus is caused by a defect in vision and can be corrected, if the case is taken in time, by the use of suitable glasses, is the teaching of Prof. Keyser.

TRANSLATIONS.

SPHYMOGRAPHIC STUDIES OF PARALYSIS AGITANS.—Dr. Armin Huber has graphically described the contractions of separate muscles in paralysis agitans as studied by the aid of Marey's sphygmograph. In one case the superficial muscles were clearly outlined like cords, and upon these was placed the needle of a sphygmograph, which marked the contractions and waves as accurately upon the paper as if it were upon the radial pulse.

The markings thus obtained revealed the following: That the contraction of one muscle in a given time is not always the same. In this case the right biceps brachii contracted thirty-four times on June 19, 1886, and twenty-nine times on June 22, 1886, in one second. In studying the curves of several muscles in a certain time, a marked difference in the number of curves were also seen. In one second the extens. digit., common, dext., contracted twenty-four times; the extens. digit., comm. sinister contracted thirty-one times, and the biceps of the right arm twenty-nine times. That the oscillations of different parts of the body occur in varied rapidity had been previously shown by Grossbey (*Arch. f. Psychiatrie*, xvj., S. 857, 1885).—HUBER, in *Arch. f. Path. Anat.*, etc.

DUODENAL ULCER.—In a recent monograph, BUCQUOY says that the diagnosis depends upon: (1) intestinal hemorrhages, with tar-like feces, occurring suddenly and abundantly, shortly after meals, causing extreme anæmia; (2) pain at the close of stomach digestion in the right hypochondrium, sometimes with reflex nervous phenomena; (3) vomiting, icterus exceptionally, and a remarkable preservation of the appetite. The duodenal ulcer occurs most frequently in men.

The treatment is nearly the same as that of gastric ulcer, but the exclusive milk diet need not be persisted with for so long a period.

ANTIFEBRIN AS AN ANTIEPILEPTIC.—Dr. A. Salm, in *Neurol. Centralblatt*, states that Dujardin-Beaumetz (in a report to the Société de Thérapeutique)

considered antifebrin useful in all cases of spinal irritation; in one case, by its use, he subdued and controlled an attack of epilepsy.

At the University of Strasburg, at Joly's direction and under Dr. A. Salm's supervision, eleven cases were treated with this drug, and no beneficial result obtained; it produced, however, a condition of cyanosis and colored the urine dark. In the middle, and at the end of the antifebrin treatment, the blood of the patients was examined, yet in not one case was methæmoglobin discovered. The subjective symptoms and condition of the patient were not materially influenced; and, in those cases in which the lips were colored blue, no serious or pronounced symptoms were produced.

A CASE OF BULBAR PARALYSIS.—LEYDEN, in *Charité-Annalen*, reports the following case: A pregnant woman, 37 years of age, who had been suffering for three years with left sided deafness, was attacked (in the third month of her pregnancy) by a sudden vertigo, and has shown since an extreme weakness of her lower limbs and difficulty of speech. These symptoms gradually increased, the right arm also becoming involved in this weakness. The patient being admitted to the Charité (six months after the first attack), her case was pronounced an acute attack of bulbar paralysis. The question as to the origin leads us: 1st. To her pregnant condition (myelitic or encephaloid paralysis, or progression and growth of a tumor under the influence of gravitation). 2d. A possible connection with her ear disease. 3d. Other diseases (e.g., syphilis).

Under the treatment with iodide of potassium her general condition improved somewhat, only to again go from bad to worse, until her death, about six weeks after her admission to the hospital, which occurred suddenly, through paralysis of respiration.

The diagnosis previous to the fatal termination, of a tumor of the petrous portion of the temporal bone was, upon section, proved to be correct.

An osteosarcoma of the left petrous bone and a tumor the size of an egg were found between the petrous portion of the temporal bone and the strongly compressed pons varolii.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DEC. 1, 1887.

EDITORIAL.

THE LEPERS AND THE HEALTH
AUTHORITIES.

TWO persons, a mother and daughter, on a visit from South America, consulted Dr. Van Harlingen of this city for a chronic form of skin disease, principally affecting the exposed portions of the body. From his examination the conclusion was reached that the disease in question was leprosy, and with the consent of the patients they were presented before the County Medical Society of Philadelphia, at a clinical meeting, and much interest was manifested in them by those in attendance. Unfortunately for Dr. Van Harlingen, the community derives its ideas of leprosy from early Scriptural sources; perhaps intensified recently by reading the popular novel, Ben Hur, and also by the reports of the Chinese lepers in San Francisco. Probably the members of our City Board of Health held this view of the disease when they took official action which resulted in incarcerating the unfortunate patients in the Municipal Hospital, with little hope of ever returning to their homes. The question is suggested: If these sufferers, instead of being women, had been business men, or, say the Crown Prince or Royal Highness of some place or other, the other conditions remaining identically the same, would the sentence of the medical court have been so summarily executed? There is no question but that these patients could have returned to their homes as quietly as they came, had it not been for the entirely senseless and sensational character given to their case by our Board of Health.

Since the demonstration of its parasitic nature, the question now should no longer be, "Is leprosy contagious?" but, "Are the favorable conditions present which are essential to its spread?" It must be admitted that in this country the virus is much milder than it is in the Sandwich Islands, for instance, or in ancient Palestine; and that, as it is a filth disease, our manner of living is decidedly unfavorable for its propagation. Von Ziemssen also declares, that experience has shown that the prognosis (*quoad vitam*) becomes better when lepers immigrate into countries free from the disease. In Norway and other European countries, direct communication of the disease, as from husband to wife, or from the sick to their attendants, has rarely been demonstrated. Even persons living in a leper settlement, in daily intercourse with lepers, may enjoy immunity for many years by the exercise of the ordinary precautions; as instanced in the case of the Jesuit priest at Molokai, who was reported a year ago as showing the first symptoms of infection after living a quarter of a century at the leper settlement.

Since the 11th century, when leprosy prevailed epidemically in France and other European countries which are now entirely free from it, modern civilization has entirely changed the conditions of life; so that neither the plague nor leprosy can now find congenial soil, in sufficient quantity, for their development and spread. It is true that civilization has required isolation of the leper; but his isolation is never absolute, and is far less rigid at present than it was in ancient times, when it failed to prevent the spread of the disease. Modern medicine can now isolate the patient by the use of antiseptic and detergent applications far more effectually than by a quarantine cordon; and it

is probable that the precautions taken by Dr. Van Harlingen would have proved quite sufficient for the protection of the public. That the interest of the profession is thoroughly aroused by these cases, was shown at the meeting of the County Medical Society on last Wednesday night, when it again had the subject of leprosy under discussion, following a lecture delivered by Dr. Bechtinger, of Panama, by special invitation of the Society. F. W.

GOOD NURSES AND BAD MANAGEMENT.

IN a recent issue of a Philadelphia Sunday paper appears the statement that two children temporarily left at the almshouse, while their father was out of work, after a two months' sojourn in that place, were returned to him covered with vermin and infected with a loathsome disease, which was said to have been contracted by the use of dishes, etc., which were handled by inmates affected with syphilis.

Such allegations are frequently made concerning public institutions, but an investigation generally shows the reports to be untrue, or exaggerated. We trust that this will prove to be the case in the present instance.

But we must take occasion to say that the management of this hospital, at the present time, is not such as to inspire us with the fullest assurance that the welfare of the inmates is the chief concern of their attendants.

When an English nurse was imported to take a position for which any number of qualified persons could have been secured at home, we thought the action of the managers somewhat sensational. Still, if the appointee faithfully did her duty, we stood ready to approve of the action of the board. The duties of her responsible position were such as to require her whole time

and attention. But instead of encouraging her to do this, she was made more or less of a social lioness, according to the prevailing taste.

Social success is dear to the feminine heart; dearer than all else after the advance of years has placed her beyond the influence of the maternal impulses. Once entered in the race for society honors, and family, household and other duties become of secondary interest. The love of dress, for this reason, long survives the loss of good taste in personal adornment.

Five o'clock teas may not be seriously objectionable in themselves, but the unremitting care, the constant watchfulness necessary to keep in order the heterogeneous population of the almshouse hospital, allow little time to be taken from the matron's day for such social relaxations.

The same method of spoiling a corps of trained nurses is said to be in operation in another of our hospitals. Here the imported nurses are placed in such absolute control that the physicians are reduced almost to nonentities. As one plaintively remarked, the only function left him is to sign the certificates of death. The nurse, secure in her position, ignores the physician entirely, and is seen driving in the Park with the managers during the warm summer evenings. How can she return with keen interest to the many disagreeable duties of her office?

W. F. W.

THE MALADY OF THE CROWN PRINCE OF GERMANY.

IN a former note we ventured to express some doubt with regard to the favorable prognosis in the case of the Crown Prince, although it seemed rather ungracious to do so, when authorities concurred in expressing the contrary opinion. The recent unfavorable turn, which the distinguished

patient's illness has taken, necessarily exposes Sir Morell Mackenzie to much unfavorable criticism; and those physicians, whose advice was disregarded in the earlier part of the year, are now not unnaturally ready to exclaim, "I told you so!" The case certainly bids fair to settle a point of practice, and to establish the propriety of early excision in papilloma, or pachydermia verrucosa or whatever may be the proper term to apply to this process, when it attacks the larynx.

It will be remembered that the warty growth had already been removed several times after destruction by caustics, before the world was startled by the statement, that it was proposed to submit the Crown Prince of Germany to the operation of excision of one-half of the larynx. If it had been anybody else it would have been done, but being the Crown Prince, the very proposal involved grave political considerations. Prince Bismark, it is an open secret, held very decided opinions. Bismark is old; the Emperor is very old. The men who made the German Empire are disappearing. The Radicals and Socialists are active and restless. The French watch for *la revanche*. A strong hand will be needed at the helm, and a strong man the Iron Chancellor would leave behind him. An emperor without a voice; an emperor with the horrible threat of death from cancer hanging over him, was not to be thought of; the Crown Prince, therefore, would have to abdicate. There seems to have been no attempt to dispute this conclusion; the only hope was that one of the premises was wrong. Was it really cancer? In this extremity Dr. Mackenzie was sent for in May. He was not so sure as Bergmann and his colleagues; at least he said, "let us remove a piece of this growth and submit it to a competent pathologist." So fragments of

growth were removed, and Virchow, who is generally held to be the most learned and experienced pathologist in Germany, if not in the world, said that it was not cancerous. That being assumed to be a true and final opinion, Dr. Mackenzie undertook to remove the whole of the growth then existing, and so did. Now it has recurred lower down, and with characters which by the naked eye are recognized to be malignant. What are we to suppose: that Virchow made a mistake, or that simple papilloma or pachydermia verrucosa may be quickly followed by cancer of the same part? Or that cancer in the larynx presents appearances, both to the laryngoscope and the microscope, which cannot be distinguished from papilloma? The last alternative is the proposition put forward by various writers in England and Germany, from the beginning of Dr. Mackenzie's attendance.

It is, of course, quite possible, that Virchow might have made a mistake, and a very serious one. But this may not be the only alternative even if the disease be really malignant in character. Supposing Virchow not to have made a mistake, would this case indicate that there might be a form of disease occurring in the laryngeal mucous membrane, which corresponds with Paget's disease of the nipple?

F. W.

DR. FREDERICK N. HYDE, of Cortland, New York, died recently at his home in the eightieth year of his age. He was graduated in 1835 and had been actively engaged in the duties of his profession for more than half a century, during which period he attained distinction as a surgeon and became widely known and respected. In another column, we lay before our readers a valuable treatise written by Dr. Hyde a few months before his death on the subject of "Medullary Cancer."

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

OPENING OF THE MEDICAL SCHOOLS—
THE HARVEIAN ORATION—EPIDEMICS
OF WHOOPING COUGH AND OF SCAR-
LET FEVER—STATE REGULATION OF
ARCHITECTURE AND ENGINEERING—"B.
P. C." UNOFFICIAL FORMULARY, ETC.

GREAT interest is always felt, even outside the circle immediately affected by the result, as to the number of students who have entered each year at the various medical schools in this country. Needless to say, there is a keen rivalry, not only between the three countries, but also and especially between the schools established in the same city. This rivalry is nowhere stronger than in London. The fluctuations at some schools are very wide and apparently inexplicable. Why, for instance, more students should just now go to St. Mary's than to Guy's Hospital is not easy to understand. St. Mary's has rushed rapidly from a very inferior to a very prominent place, and has well deserved to succeed. Its staff of teachers comprises many well-known names, and the apparatus for teaching is first-rate; yet the same, if not more, may be said for Guy's, which has, in addition to the prestige of a long roll of brilliant names, the more solid advantage of a large hospital. The decline of King's College and of University College is to be accounted for by the rivalry of Cambridge and of Oxford; but the same explanation will hardly apply to Guy's or St. George's Hospital. The gross result for London shows a slight increase over the average for the last quinquenniad. To people who are not teachers, however, the steady increase in the number of candidates for medical qualifications is not a ground for unmixed congratulations. Nearly seven hundred in London, and probably over three hundred in the provinces (including Oxford and Cambridge) make a total of more than one thousand in England alone. Scotland and Ireland together will probably contribute as many more. Even if only two-thirds succeed in qualifying, the question

arises unbidden to the lips, How are they all to get an honest living? Quackery is rampant, in spite of legislation which seriously hampers the quack; the prescribing chemist is at every street corner; and the benevolent gentlemen who know a sure and speedy cure for cancer, epilepsy, or consumption advertise with their customary benevolence in every paper. A committee of the New South Wales Legislature, over which the Hon. Dr. Creed presided, collected a mass of very curious evidence about incompetent and unqualified practice in Australia, and that colony has become rather too hot for some of the confraternity. Not a few of those whose acquaintance the committee were most anxious to make had disappeared when their names were called. One firm seems to have come to London, if an advertisement under the same name may be trusted, where we already had a plentiful supply of advertising nostrum-mongers. "Westward the course of empire takes its way." Once upon a time, all wonderful discoveries in medicines came from the East: the marvellous wash, for instance, which was to make people beautiful forever, but which, having failed in one case at least, led to its vendor spending some years in the seclusion of one of Her Majesty's convict prisons, was "brought on the back of swift dromedaries of the desert" for the use of the fair ones of the West. Now, however, the East is rather "played out," and the great and marvellous cures are effected by American drugs, culled by mysterious Indians, and retailed by enterprising companies or persevering but secret individuals. Moreover, there are always a hundred well intentioned people who are to be found at every sick and ailing person's elbow with advice which, in reality, and not merely in pretence, costs nothing, and is worth about the same sum. Happily, a satisfactory proportion, and these the most sensible and valuable class, are as little impressed by this gratuitous advice as was Hotspur when told that

"The sovereign'st thing on earth
Was parmaceti for an inward bruise."

The Harveian Oration, delivered annually before the Royal College of

Physicians of London, was given this year by Dr. W. H. Stone, Physician to St. Thomas Hospital. He called his discourse *Iatrophysika*, the "physical physician," coining the word because he desired to give prominence to one special quality which he claimed for Harvey: namely, that he was a physi-cist, and approached physiological problems from that side. Harvey's own private notes for his lectures, delivered in 1616, were discovered about ten years ago, and, acting on the sug-gestion of Sir Edward Sieveking, the College of Physicians published them this year in fac simile, with a trans-cript. The notes are written mainly in Latin, but there is a considerable ad-mixture of English, so that the result is a curious medley. Nevertheless, the ideas are generally very precisely ex-pressed; and in places the ideas, if not the words, are eloquent. A good ex-ample at the same time of the peculi-arities and merits of the notes is af-forded by the following sentences, quoted by Dr. Stone. Speaking of the maintenance of the human species by generation, in spite of the death of the individual, he says: "By the string tyed to eternity. Unde cum natura non potuit Individualem æternitatem, id quod potuit harum partium facul-tate speciem æternitatis generando sibi similem in secula. Unde sacris literis greatest blessing Issue, that thy seed shall remayne for ever."

Dr. Stone finds a remarkable mathe-matical element running through the argument both of the great treatise and of these lectures. He contended that physiological physics are too much neglected, and that all the physics a medical student should be compelled to learn ought to have a bearing, direct or indirect, on the physics of medicine. The student is already very heavily burdened by the load of "preliminary sciences" laid upon him, and anything that tends to make these prelimi-nary studies more really helpful would be very welcome. The toast honored by the Mathematical Society is said to be: "Pure Mathematics; and may it never be any use to anybody!" A jesting exaggeration of a sentiment which seems to be rather prevalent in some scientific coteries, and one which

reduces science to the level of chess or whist. Why cannot the student's mind be as well trained by the study of that department of physics which has most intimate relations with his future life-work as by working problems on the C. G. S. system of units, or reducing himself to the verge of dementia by attempting to choose between rival vortex-theories of matter; or to com-prehend whether the "fourth dimen-sion of space" is a sane theory or a recondite joke. This was the main conclusion drawn at the end of a very eloquent discourse.

It is a curious fact that whooping-cough has been very prevalent in Lon-don during the summer months, which were hotter and drier this year than for the last two decades. An analysis of the returns week by week would, I believe, show that the epidemic began almost in the same week as the hot-weather. The deaths from whooping cough in London had been below the average. All through the spring, which was cold and wet, in the week ending June 4th they were 3.4 below the aver-age; the fine hot spell began on June 5th, 6th. In the week ending June 11th the deaths from whooping-cough were above the average; in the following week they were 6.3 above the average; then there was a temporary decline, but the above figure was exceeded in the week ending July 9th, when 86 children died of the disease, or 7.5 above the average. The following table shows the corrected number of deaths in each quarter since the beginning of 1885:

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
1885	607	661	541	669
1886	1551	786	295	202
1887	443	834	823	

It would be interesting to know whether the mortality during the hot weather was as high in relation to the total number of cases, *i. e.*, to the mor-bidity of whooping-cough, as is the case when the epidemics occur in winter. No novel methods of treating the dis-ease have been made known. A great many physicians content themselves

with treating the catarrh. Good results may sometimes be obtained with belladonna in sufficiently large doses, but ill-fed or anemic children do not bear it well, and for them there are few drugs equal to quinine. The catarrh, in them, is often not severe, though the paroxysms of cough may be frequent and exhausting. Whether the quinine really acts as a nervous sedative, or merely as a tonic would be difficult to say, but if there is much bronchitis it is of little use, and it is hardly worth while to continue it for more than a fortnight or three weeks in any case. Diarrhoea, which is often present, also seems to contraindicate belladonna, but not quinine. Dr. John Lowe, who recommended pure benzol some time ago, has again called attention to it. He lays stress on the necessity of having the drug quite pure, and says that disappointment is often due to neglect of this precaution. The dose for a child of four or five years is mij every two hours, and he begins its use at the end of the acute stage; then it diminishes expectoration and decreases the spasmodic character of the cough. The prescription he gives is: R. Benzol puriss. (Hopkins & Williams), mxxxij ; glycerin. pur., ℥iss ; ol. menth. pip., ℥x ; syr. mori, ℥ss . M. Sig.— ℥i Secunda quaque hora.

As benzol is a chemical body of known composition, there is no reason why any respectable chemist should not be able to supply as pure an article as the firm mentioned. The local application of resorcin in solution (about one per cent.) gives in my experience results as uncertain as any other remedy. In the early stage it, in some cases, at first seems to do some good. How much of this good effect is due to the vomiting, which is generally induced, is doubtful; and however this may be, no advantage is obtained by its long continued use.

The present epidemic of scarlet fever in London is the most extensive of which any accurate record has been preserved; it still retains its mild character, though the hospitals of the Metropolitan Asylums Board alone contained, in the week ending October 15th, 2,016 patients suffering with scarlet fever; the total number of deaths from this

fever in the whole of London was only 124, and the general death rate from all causes was 16.7. It is reported that in nearly all cases consent is obtained for the removal of the patients from their own homes to one of the special fever hospitals, which now number six, besides several huts; the total number of beds provided to meet the emergency is 2,344, and of this number 2,143 were, on October 22d, occupied by patients suffering from scarlet fever. In his report for 1885, recently issued, the Registrar-General for England directed special attention to the very low scarlet fever mortality in 1885, and observed: "If the diminished mortality be due to diminished prevalence, there must be at the present time an abnormal accumulation of unprotected children in the population, and consequently a probability hereafter of a period of excessively high mortality; whereas, if the diminution be due simply to mildness of type, no such anticipation need be entertained, inasmuch as a mild attack is believed to confer as perfect after-immunity as does a more severe attack." The existing epidemic appears to be almost conclusive in favor of the first alternative.

A bill has been drafted by a committee of leading architects and civil engineers for the state regulation of architecture, civil engineering, and surveying; at the present time any person who so pleases can commence the practice of one or all of these professions with no qualifications beyond self-assurance; the spokesman of the architects themselves admits that very many so-called architects are utterly ignorant of the most elementary laws of sanitation, and that by their want of knowledge they may and do "cause serious risk to the lives of their clients, besides putting them often to large and grossly unnecessary expense." The draft bill would provide for the creation of a general council of architectural, civil engineering, and surveying education, and registration of the United Kingdom; with branch councils for England, Scotland and Ireland. The whole scheme is modelled upon the system of medical registration in force, and provides for the registration by this council of all

persons at present in practice as architects, civil engineers, or surveyors, and the compulsory examination of all hereafter desirous of entering its ranks. There can be no doubt at all that it would be a great advantage to the public, if architects were better trained in sanitary details and domestic architecture. If the bill would really effect so desirable a reform, it would be very deserving of support. Unfortunately, however, it does not from beginning to end contain one reference to sanitary construction and engineering. Moreover, some of the ablest and most famous architects in this country are grossly ignorant of sanitary requirements, or incredibly careless; it would be easy to prove this by instances. One has recently come under my observation: a small country house built from the designs and under the superintendence of one of the leading architects in London; it is most conveniently planned, soundly built, and the elevation is very picturesque; the drains however are very badly arranged, and when examined recently were found to have been so carelessly finished that not one was in proper working order; evidently an ignorant or dishonest builder had been allowed to make the connections between the house pipes and the drains in any way that pleased his conscienceless soul, the architect not caring to take the trouble to ascertain whether the beautiful house he had built would not be rendered almost uninhabitable by imperfect drainage. Yet this very gentleman, were such a council to be established, would very probably be one of the first persons nominated or elected to it. *Quis custodiet custodes?*

The British Pharmaceutical Conference appointed a committee last year to draw up a series of formula for preparations, not official, in the British Pharmacopœia, but in frequent use. The first report, which has just been issued, is a modest pamphlet, containing thirty-seven formulæ. Strophanthus, convallaria, casca bark, bryony, hydrastis, and coto, are among the most important "new" drugs in the formulary. There are also a series of useful formulæ for the syrups of the hypophosphites; the whole scheme is, I understand, a direct

imitation of the similar formulary issued by the American Pharmaceutical Association.

The mention of strophanthus recalls to mind the rather conflicting statements made in various quarters to its value; it has been stated that its action is rendered more certain by the addition of ether, thus:

R Tinct. strophanthi... (1 in 20) ℥ v
Aetheris..... ʒ ss
Aq. anethi..... ad ʒ ss M.

Sir William Gull Bart, M.D., F.R.S., is suffering from right hemiplegia with slight aphasia; the bulletins state that he is making good progress toward recovery. Though he has to some extent withdrawn from active practice, his incapacitatory illness or death would remove a very conspicuous and influential figure from the medical world of London.

The late William Richard Quain, F.R.S., emeritus professor of anatomy in the University College, has left the whole of his fortune to that institution, to be applied to the encouragement of the study of modern languages and literature, especially English, and of natural science. The college receives £60,000 at once, and £15,000 on the death of certain legatees.

DAWSON WILLIAMS.

MEMPHIS.

AMERICAN PUBLIC HEALTH ASSOCIATION.—MEMPHIS SEWERAGE.—NATIONAL AND STATE QUARANTINES.—CREMATION OF GARBAGE.—WATER POLLUTION.—PRIZE ESSAY ON ECONOMICAL COOKERY.—DISINFECTANTS.—NATIONAL HEALTH BUREAU.—PERSONAL.

THE American Public Health Association has just adjourned after a four day's session in this city. The experiment in sewerage, begun here seven years ago, was one of the subjects whose study added greatly to the interest of the meeting. The almost unanimous sentiment of the Association is that the experiment was successful, and that the action of the local authorities in attacking the problem with so much courage and vigor has advanced the cause of practical sanitation more than any other sanitary experiment of the decade.

The subject of quarantine administration was pretty fully discussed by Drs. Rauch, Wyman, Holt, Bell and others. Dr. Bell showed very conclusively in his remarks that the administration of the quarantine service at New York was utterly inefficient. The quarantine at New Orleans on the other hand is unquestionably the most complete in equipment and effective in administration of any such in this country, if not in the world. The quarantine services at most other posts on the Atlantic seaboard, excepting Boston, are entirely below criticism. Not one of them answers the demands of modern sanitary science.

The prevailing sentiment of the Association was in favor of national supervision of maritime quarantine. Some of the members were in favor of placing the control of quarantine in the hands of the Marine Hospital Service, and this view was ably argued by Dr. Wyman of that service. He said the disciplined body of trained medical officers constituting that service would form an organization ready to take charge of the work. Being under the control of the Secretary of the Treasury, it could summon, when necessary, as quarantine aid, the collectors of customs, who have by law the powers of search and detention of vessels, and who may be relied upon for accurate information. By department usage the Secretary of the Treasury is immediately furnished with copies of all health dispatches received at Washington by the State Department from its foreign consuls and ministers. The Secretary has likewise a powerful aid in the revenue cutter service, as a naval force to patrol the coast, and as a maritime police to assist in quarantine. The machinery for a national quarantine seems to be thus already provided and in such constant activity as to prevent its getting rusty or being taken unawares by sudden invasion. The only additional legislation needed to make a national quarantine under this service effective, is the appropriation of sufficient means to properly equip and maintain government quarantine stations, and an act providing penalties for violating the quarantine laws.

While the absolute control of quaran-

tine by the national authorities seemed to meet with many objections, most of the speakers were quite willing that the national government should give pecuniary aid where State or municipal authorities were too economical to equip and maintain an efficient quarantine establishment. Resolutions were adopted advocating increased appropriations for the national quarantine stations at Delaware Breakwater, Cape Charles, Sapelo, and the Gulf of Mexico.

The cremation of garbage was treated in a practical paper by Dr. Laberge, of Montreal, where all the garbage has been disposed of in this manner for the past two years. The experimental study of this method of garbage disposal has also been begun in Pittsburg, Wheeling and Des Moines.

The problem of water pollution was prominently brought to the notice of the Association by papers and remarks from Dr. Charles Smart, U. S. A., Dr. Williston, of New Haven, Dr. Hewitt, of Minn., Dr. Walcott, of Mass., Prof. Brewer, of Yale College, Dr. Abbott, of Mass., and others. In Massachusetts a very extensive and thorough study of water pollution, both as to its causes and remedies, has just been begun under the direction of the State Board of Health. The Legislature of that State has appropriated thirty thousand dollars for the purpose of defraying the expenses of this experimental study.

Mr. Henry Lomb, of the firm of Bausch & Lomb, of Rochester, through whose liberality over one hundred thousand copies of the prize essays on "Disinfection," "Healthy Homes for the Working Classes," "School Hygiene" and "Factory Hygiene," issued under the auspices of the Association, have already been distributed, offers a prize of \$500, and one of \$200, for the best essays on the following subject: "Practical, Sanitary and Economic Cooking for Persons of Small Means."

A committee, consisting of Drs. C. A. Lindsley, George H. Rohé and V. C. Vaughan, was appointed to carry the proposition of Mr. Lomb into effect. The committee was instructed to add to its number two ladies who have practical experience as instructors in cooking, in order that the best essays may be selected.

The Committee on Disinfectants presented a final report, consisting of four parts: "A Detailed Report of Laboratory Work on Various Disinfectants," by Dr. G. M. Sternberg, Chairman of the Committee; "An Experimental Investigation into the Destruction of Ptomaines," by Prof. V. C. Vaughan, of the University of Michigan; "Recent Methods of Practical Disinfection in Contagious Diseases," by Dr. George H. Rohé, and "Maritime Disinfection as applied at the New Orleans Quarantine Station," by Dr. Joseph Holt. All of the papers contributed by the committee to the transactions of the Association, during the past three years, are to be published in a separate volume and sold at the cost of publication. It is believed that this will be the most complete and practical work on sanitary disinfection obtainable in print. The results of Dr. Sternberg's experiments upon various pathogenic organisms, with the disinfecting agents tested, may be summarized as follows:

Moist heat of a temperature of 56° C. (132.8° F.), maintained for five minutes is fatal to the bacillus of anthrax, the bacillus of typhoid fever, the bacillus of glanders, the spirillum of Asiatic cholera, the erysipelas coccus, the virus of vaccinia, of rinderpest, of sheep-pox, and probably of several other infectious diseases. A temperature of 62° C. (143.6° F.), maintained for the same time, is fatal to all of the pathogenic organisms tested, in the absence of spores. A temperature of 100° C. (212° F.), maintained for the same time destroys the spores of all pathogenic organisms which have been tested.

Of the chemical disinfectants tested, a solution of chloride of lime (1:25), bichloride of mercury (1:500), sulphate of copper (1:20), and carbolic acid (1:20), are generally efficient. The last two only can be relied upon, however, if the organisms to be destroyed do not form spores. Dr. Sternberg also tried caustic lime in solutions of varying strength, but without satisfactory results.

The recommendation in the address of the president, that a national health bureau should be established, was adopted by the Association, and resolutions were passed urging the necessary

legislation upon Congress.

Resolutions were also adopted, urging upon railroad companies to disinfect excreta before allowing them to be scattered along the tracks, and thus becoming probable sources of infection.

The officers elected for the coming year are Dr. C. N. Hewitt, of Minnesota, President; Drs. George B. Thornton, of Tennessee, and Joseph Holt, of Louisiana, Vice-President; and Drs. Henry B. Baker, of Michigan, S. H. Durgin, of Massachusetts, and J. N. MacCormack, of Kentucky, to fill vacancies on the Executive Committee. The ever popular Treasurer, Dr. J. Berrien Lindley, was re-elected to that position.

The social attentions were not so profuse as those offered last year at Toronto, but quite sufficient to distract some of the younger members from faithful attendance at the meetings.

The Association will meet next year in Milwaukee. G. H. R.

BOSTON.

THE FOURTH YEAR OF MEDICAL STUDY AT HARVARD; GLANDERS AMONG CAR HORSES; PROSPERITY OF BENEVOLENT AND CHARITABLE INSTITUTIONS:

THE session of the medical department of Harvard University has opened with an attendance slightly smaller than last year. The faculty have been struggling for some years with a problem of which they have certainly not yet reached a solution, namely: the four years' course for medical students. It was felt by many that this period was none too long for a satisfactory course of professional study, such as the university is now abundantly qualified to give. It was not felt, however, that the school was yet in a position to insist on such a course as a requisite for its degree. So the compromise method was adopted of inviting students to add one year to the regular course, the diploma to bear evidence that that period of time had been spent. Practically, the fourth year work consists almost entirely of clinical instruction in the various specialties of medicine, ophthalmology, laryngology, gynecology, and the like; it is a post-graduate, or polyclinic year, added to the former and still regular curriculum. But a

man need not elect to take this fourth year until he has finished his third year; and it has often happened that this decision has been dependent upon whether he had succeeded in getting a wished-for hospital appointment, or wanted to "wait around" another year for the purpose of getting it, or for making up failures in previous work. So that, as one of the students happily expressed it, it remains a mooted question whether the taking of the fourth year is really to be considered a creditable thing or not. It is now proposed that no student shall be allowed to take the fourth year who has not successfully passed all the examinations of the first three years. This will settle the conditions of the fourth year men's position. But it is thought by some that a four years' course, to fulfil its best purpose, should be graded on that basis of time *ab initio*, instead of graded for three years, and then having a number of specialties tacked on as a sort of after-thought. Before the much desired step can be taken of requiring this lengthened course of all students, it will be necessary to provide a means whereby a student in the academic department can make his relative studies of the senior year count as a portion of his medical school work. For, with the increasing requirements for admission to the college, the average age of the students has increased to such a degree that they do not graduate till more than twenty-two and a half years of age. If to this we add four years of medical study, a year in hospital, and one or two years abroad, the period of beginning practice is postponed altogether too late to suit the patience of the average young man, or to agree with the condition of his purse.

For the last month or more a controversy of some bitterness has been going on between the cattle commissioners of the State of Massachusetts and one of the local horse-car companies, over certain cases of alleged glanders. The cattle commissioners consist of three persons, supposed to be experts in the diseases of cattle. They are appointed by the Governor, to receive compensation at so much per day of actual work. Of a large number of horses owned by the Cambridge road, the commissioners

ordered 169 to be isolated, as having symptoms of glanders. Some of these animals were classed as merely suspicious; others as probable; others, again, as dangerous cases. The killing of these animals, which the commissioners had power to order, would have cost the road \$15,000 or \$20,000. To protect their interest, they employed three veterinarians, one of them, Dr. Lyman, the head of the Veterinary Department of Harvard University. These men expressed doubt of the existence of glanders in most of the cases, from clinical examination. Four of the most suspicious cases were killed for the sake of post-mortem examination; and in at least two cases, it is said, there was nothing found to point to the disease. Dr. Winchester, the veterinarian of the board, was not convinced, and it was proposed to call in experts from outside the State, among them Dr. Huidekoper, of Philadelphia; but the majority of the board of commissioners finally receded from their position, persuaded, apparently, by the result of the autopsies, and the company was authorized to resume control of most of the horses, which animals, by the way, had not, during all the time of confinement, appeared to suffer in health to any considerable degree. The horses not yet released, numbering some sixty or seventy, are isolated in a separate stable pending further examination.

The Massachusetts Medical Benevolent Society held its annual meeting, last week, at the house of the President, Dr. Henry W. Williams. The society was established for the relief of the indigent physicians, and more especially of the widows and children of those who left no pecuniary resources. It now possesses invested funds amounting to some \$23,000, the income from which, together with the money received from annual assessment of the members, is all devoted (there being little or no expense of administration) to the charitable purposes of the society. The beneficiaries receive each about \$80 per annum, a small sum, it is true, but, in the circumstances in which it is given, of great assistance in eking out the livelihood of worthy but struggling families.

Three of our important hospitals

have recently published their annual reports—the City Hospital, the Boston Dispensary and the Free Hospital for Women. All show prosperity and an increase in the amount of work done. It is painful to notice, however, among the expenses of maintaining the last-named institution, a very heavy legal fee, incurred in defending suits brought against the hospital by a patient who had received gratuitous treatment, and had so little sense of gratitude or decency as to try to extort money from the institution which had, in charity, done so much for her.

Dr. B. E. Cotting, one of our venerable and honored practitioners, a gentleman widely known in scientific circles outside of medicine, having been, for instance, a companion of Agassiz in his South American voyage of zoological exploration, has just completed his fiftieth year of medical practice, and, in retiring from active work, he read before a recent meeting of one of our societies a most interesting and instructive paper in retrospect of his professional career, speaking of many of the changes and advances in medical practice in the past half century, *quorum magna pars fuit*. It is hoped that this, together with some personal reminiscences of the same period, will one day be published.

C. F. W.

REVIEWS AND BOOK NOTICES.

A TEXT-BOOK OF MEDICINE FOR STUDENTS AND PRACTITIONERS. By Dr. ADOLF STRUMPELL. Translated (by permission) from the second and third German editions, by Hermann F. Vickery, A.B., M.D., and Philip Coombs Knapp, A.M., M.D., with Editorial Notes, by Frederick C. Shattuck, A.M., M.D. With 111 illustrations. New York: D. Appleton & Co. 1887. 8vo, 981.

This is an excellent translation of a standard text-book on practice of medicine, now in its third edition in the original. The systematic discussion of diseases and treatment is conducted in a direct, terse manner, the prescription quantities being given in both metric and troy weights. The notes are brief, but pointed and judicious. We notice a slight slip on page 3, where, in re-

ferring to the Plymouth typhoid epidemic, the statement is made that Philadelphia had no Board of Health in 1885. Nearly half this large work is devoted to nervous diseases. The work of translation is admirably done.

ABSTRACTS AND GLEANINGS.

OCCCLUSION OF THE ŒSOPHAGUS.—Drs. BOBBITT and BATTLE, in the *North Carolina Med. Journal*, report a case in which a boy, who had an Œsophageal stricture, endeavored to swallow a large piece of ham. The result was a total occlusion of the Œsophagus, not even water being swallowed. After various efforts had been made to relieve the patient, without success, the following method was adopted: Thirty grains of trypsin and ten grains of bicarbonate of sodium were dissolved in an ounce of distilled water. A rubber tube was passed down to the obstruction, and a small quantity of the preparation injected. This was repeated hourly. The next morning the boy could swallow without difficulty, and in the water vomited was found a number of fibres of the ham.

MANGANESE OXIDE AS AN EMMENAGOGUE.—Professor J. N. Upshur, of Richmond, Va., read a paper on the "Emmenagogue Action of the Manganese Preparations" before the Section on Therapeutics in the Ninth International Medical Congress, in which he recommends pills of bin-oxide of manganese in amenorrhœa, or in scanty painful menstruation, especially where it is due to defective vascular or nervous supply. In membranous dysmenorrhœa it is of special value. It is given in doses of one or two grains, administered after meals three times a day, and to get its full effects it should be given continuously for one or two months. It is to be preferred to the permanganate of potassium. When the amenorrhœa is connected with obvious deterioration of the blood, he gives iron in combination with the manganese. Where there is obesity, larger doses of manganese are given so as to favor waste. In vicarious menstruation, it is also useful, and, in fine, wherever the menstrual derangement is due to functional and not mechanical or obstructive cause.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

PHYSICIANS AND PHARMACEUTISTS.

Editors MEDICAL TIMES:

The conclusions reached in your editorial of November 15, entitled "The Relations of Practical Pharmacy to Medicine," seem to me so entirely mistaken, and the general tone of the article, as well as the advice given, so well calculated to mislead those just entering practice, that I am prompted to avail myself of your invitation for "Letters to the Editors."

Having been graduated from the Philadelphia College of Pharmacy in 1880, after the necessary four years' apprenticeship (a considerable portion of it spent in Philadelphia drug stores), and from the Medical Department of the University of Pennsylvania in 1883, since which I have been engaged in active practice, I think I may fairly lay claim to sufficient practical experience and sufficient opportunities for observation in both professions to justify me in forming an opinion on the subject.

The consideration of the relations of the pharmacist to the physician, as a whole, covers entirely too wide a field for discussion here. I can only say that I most heartily dissent from most of the opinions expressed in your article.

That the recent graduate in pharmacy is better fitted for the duties of his profession than the average M. D., is to enter practice, and that the better class of pharmacists adhere at least as strictly to their unwritten "Code of Ethics" as do any class of physicians to their more fully formulated principles of professional conduct, are propositions which will, I think, be admitted by every phy-

sician who has any but the most limited acquaintance with pharmacists.

These, and other facts, are too often ignored by physicians.

There are druggists, to be sure, whose "standard is commercial, not professional." Unfortunately, the same thing is true in perhaps an equal measure of physicians.

For a physician to say that the druggist must "treat gonorrhœa, and prescribe across the counter, or go out of business," is much the same as if a druggist should say that the physician must procure abortion or give up practice. Ill feeling between pharmacists and physicians, disadvantageous alike to both, is not to be remedied by sweeping denunciation of either class by the other.

The competition of counter-prescribing druggists is not, I think, so serious a factor as you consider it. Still, it is an evil, and should be restrained within its narrowest possible limits. But I do not think the "natural and effectual remedy" the one you propose, that "when the young physician receives his diploma, let him set up a pharmacy."

Nor do I think that, unless in very exceptional cases, it will be a good thing for the young physician who tries it. I am very certain that he will not obtain more experience of value "in one year in a drug-store than from five years of practice," nor will he "build up in one year a larger practice than by five years of ordinary work." Nor will he have much "opportunity of studying the methods and witnessing the results of the practice of other physicians," as every prescription clerk knows.

The knowledge of drugs he gains he will in all probability find rather expensively acquired; for, though he will find a pharmaceutical education of value to him as a physician, he will also find that his medical education has gone a very little way indeed towards making him a successful pharmacist. The people will not all flock at once to the new drug-store whose proprietor has yet to learn the rudiments of the business, because, forsooth, he is an M. D., and has perhaps "spent at least a season in Vienna or Paris."

"The druggist will then be con-

fronted with a competitor better equipped than himself." Yes, better equipped for treating gonorrhœas, perhaps, but not at all equipped for the real business of the druggist.

Moreover, the young physician will find that being half-pharmacist, half-physician, while it may suffice after some years to keep the pot boiling, will effectually prevent any real professional success.

The kind of practice he will get in his drug-store is the least pleasant, the least honorable, and the least profitable there is to be had; and out of the rank in which he has placed himself he will find it difficult if not impossible to rise.

E. H. B.

A CASE FOR DIAGNOSIS.

Editors MEDICAL TIMES:

I have a patient, a beautiful, intelligent and accomplished young lady, who has been sick nearly three months. She was taken with a very severe pain in the region of the heart, which was only relieved by morphine. It left her with an intermittent pulse, a pain on taking a deep inspiration, and considerable circumscribed soreness above the left nipple, about the size, over the surface, of the palm of the hand. By using digitalis, the heart was strengthened; that disagreeing, antipyrin was given, with the effect of relieving the pain and the intermittent pulse. That disagreed, and, after discontinuing it, the pain and soreness returned, and exists to-day. She has lost no flesh, is cheerful, and would be well were it not for the pain and soreness, which prevents her from walking or sitting up long at a time. My anxiety to effect a cure is greater than I can describe. What can the trouble be, and will you please suggest treatment? She is now taking infusion digitalis, fluid extract broom-top for slight œdema of abdominal walls, and occasionally takes a dose of Peacock's Bromides.

If the case seem of sufficient importance, you may publish this brief description, and solicit opinion and treatment.

G. B. S.

Weston, W. Va.

[We would suggest that possibly the condition in this patient is one which is a sequel of a disease rather than an active morbid process. The case appears, at first glance, to be one of circumscribed pleurisy, followed by adhesions, in which the inflammation either directly involved the pericardium (pleuro-pericarditis) or simply affected the pleura in the lower anterior part of the left chest. We would recommend inunctions, locally, with camphorated oil containing chloral hydrate (3j to f3ij) or chloroform (13j to f3ij). Gymnastic exercises, by increasing the respiratory capacity of the chest, might stretch the adhesions. The iodides might be used internally in combination with alkalies, or alkaline mineral water.

F. W.]

BUCKWHEAT RASHES.

Editors MEDICAL TIMES:

AS this is the season for buckwheat cakes, it is probable that a very large number of our people, especially the younger members, are indulging in this staff of life. I desire to obtain your aid in an investigation which I am about to make. There seems to be a belief, more or less common, that buckwheat when eaten will occasionally be productive of eruptive diseases, as urticaria and the like. My opinion has often been asked whether young children should be allowed to eat freely, or at all, of buckwheat cakes. From my own experience, I have always replied in the affirmative, of course guarding this advice by caution as to over-indulgence.

I desire now to bring the subject before the brethren, and request that any who may have records of cases where eruptive or any other form of disease has followed and been supposed to result from the use of buckwheat, will kindly furnish me the data. I will also be obliged for information as to the existence of any literature of this subject.

WM. B. ATKINSON, M.D.

Philadelphia, Nov. 12, 1887.

IN DIPHTHERITIC CONJUNCTIVITIS, Prof. Keyser claims excellent results from the use of chlorate of potassium, gr. xx-xl to f3j, with hot compresses.

MISCELLANY.

GENERAL CLINICAL SERVICE OF THE MEDICO-CHIRURGICAL HOSPITAL.—The classes of the medical and dental schools have had the advantage, during the fall course just ended, of seeing a number of rare operations performed by Professor Garretson. Amongst these was the removal of a tumor lying beneath the carotid artery, and attached to the body of a cervical vertebra, which required a delicacy of manipulation not often called for by a surgical condition. The patient, a gentleman from North Carolina, left the hospital for his home after seven days in the ward. The incision was of the general character of that used for the ligation of the primitive carotid artery, but very much longer. Preliminary to the dissection the muscle and vessels were lifted and held out of the way by means of retractors. The vascular character of the tumor compelled strangulation of its base. A perfect cure was promised the patient.

A second operation, one very seldom done before a class, consisted in the complete clearing out of the zygomatic fossa, the part being reached through the removal of the coronoid process of the inferior maxilla, the ligation of the internal maxillary artery, and detachment of the temporal and external pterygoid muscles. This is an operation devised by the elder Pancoast, but attempted so seldom that few surgeons have ever witnessed it, much less done it. The patient in this case, a gentleman from New Jersey, was so great a sufferer from neuralgia that his usual dose of morphine was two grains, while even under such influence his nights were spent in wandering from cellar to garret, while his cries were the disturbance of his neighborhood. Monday evening the patient sat up, and on Tuesday he visited about the wards and enjoyed a cigar. Up to the present writing he remains free from even so much as a twinge of pain. Prof. Garretson expresses a belief that the relief will be permanent, owing to the fact of the removal of all nerve structure emerging from the oval foramen.

The surgical clinics of the hospital are continuously rich in rare cases. Prof. Pancoast's Wednesday clinics,

the eye clinic by Prof. Keyser on Fridays, and the orthopædic series held by Prof. Goodman on Thursdays, prove inviting to practitioners of the city and surrounding country, many of whom are constantly present. The classes of these two schools will number this winter not less than four hundred.

THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA held its eighth regular meeting at the Supreme Court Room, State Capitol, Harrisburg, Wednesday, November 9th, at 2 P. M.

The report of the secretary, which was presented, embraced the following items of public interest:

1. Annual report of the Board to the Governor.

2. Instructions for preventing the further pollution of Sugar Creek, addressed to the council of Troy, Bradford county.

3. Report on a sanitary investigation of the borough of Allegheny Furnace, Blair Co., by Charles B. Dudley, M.D., inspector.

4. Report of a sanitary inspection of Camp Winfield Scott Hancock, by Wm. B. Atkinson, M. D., and D. J. McKibbin, M. D., inspectors, with morning reports of officers of the day.

5. Action of the Secretary in reference to cases of glanders in Philada.

6. Conference between State Veterinarian Bridge, of Philadelphia, Dr. C. N. Hewitt, Secretary of the State Board of Health of Minnesota, and the Secretary, on inter-State notification of infectious diseases of domestic animals.

7. Correspondence in reference to the prevalence of epizootic spinal meningitis in New Jersey.

8. Report of Secretary as delegate to the Annual Conference of State Boards of Health.

9. Report on the work of the section on Hygiene and State Medicine of the Ninth International Medical Congress, by the Secretary.

10. Report of typhoidal pollution of Ballygoming Creek, W. B. Atkinson, M. D., inspector.

11. Report of inspections at Unionville and Coatesville, Chester county, W. B. Atkinson, M. D., inspector.

12. Report of inspection of bone

boiling establishment at Sellersville, Bucks county, W. B. Atkinson, M. D., inspector.

13. Letter to the Board of Health of Philadelphia on Quarantine of the Delaware against cholera.

Also, the reports of standing committees:

1. Executive Committee: Pemberton Dudley, M. D., Chairman.

2. Committee on Registration and Vital Statistics: Benjamin Lee, M. D., Chairman.

3. Committee on Preventable Diseases and the Supervision of Travel and Traffic: Joseph F. Edwards, M.D., Chairman.

4. Committee on Water Supply, Drainage, Sewerage, Topography and Mines: Howard Murphy, C. E., Chairman.

5. Committee on Public Institutions and School Hygiene: J. H. McClelland, M. D., Chairman.

6. Committee on Adulterations, Poisons, Explosives, and other Sources of Danger to Life and Limb: Pemberton Dudley, M. D., Chairman.

7. Committee on Sanitary Legislation, Rules and Regulations: David Engelman, M. D., Chairman.

8. Report of special committee appointed to inspect the drowned lands in Exeter and Wyoming Boroughs, Luzerne county: Howard Murphy, C.E., Chairman.

9. Appointment of standing committees for the ensuing year.

10. Unfinished business.

11. New business. Nomination and election of vaccine inspector for the Lower Merion District.

Nomination and election of medical inspector for the Western Slope District.

—DR. ASHHURST performed tracheotomy in his Clinic held at University Hospital, Nov. 12th, 1887, for dyspnoea and partial aphonia from impairment of the glottis following diphtheria. He stated that the first incision, through the skin, produces anæsthesia of the surrounding tissues, and quoted Brown-Sequard's experiments on animals as corroborating his views. Therefore it is his custom to give no anæsthetic in tracheotomy, and he claims, with good results; but this patient proved to be an exception, and struggled violently.

OFFICIAL LIST

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOV. 6, 1887, TO NOV. 19, 1887.

COLONEL GLOVER PERIN, ASSISTANT-SURGEON GENERAL.—Retired from active service, Nov. 17, 1887, by operation of law. S. O. 260, A. G. O., Nov. 17, 1887.

MAJOR CHAS. R. GREENLEAF, SURGEON.—Par. 8 S. O. 248, A. G. O., Oct. 25, 1887, directing Surgeon Greenleaf to visit the recruiting depots and rendezvous at certain places, is amended to include Davenport, Iowa; Quincy, Ills., and Evansville, Ind. S. O. 257, A. G. O., Nov. 4, 1887.

CAPT. C. B. BYRNE, ASSISTANT-SURGEON.—Relieved from temporary duty at Ft. McHenry, Md., and will return to his proper station, Washington Barracks, D. C. S. O. 242, Div. Atlantic, Nov. 11, 1887.

CAPT. HARRY O. PERLEY, ASSISTANT-SURGEON.—Now on duty at Ft. Wayne, Mich. Ordered for temporary duty with troops stationed at Highwood, near Chicago, Illinois. S. O. 258, A. G. O., Nov. 5, 1887.

CAPT. LEONARD Y. LORING, ASSISTANT-SURGEON.—Ordered for duty at Ft. Morgave, Ariz. Ty., upon the expiration of his present sick leave of absence. S. O. 258, A. G. O., Nov. 5, 1887.

FIRST LIEUT. F. J. IVES, ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect on or about the 15th inst. S. O. 113, Dept. Platte, Nov. 5, 1887.

FIRST LIEUT. F. V. WALKER, ASSISTANT-SURGEON.—Relieved from duty at post of San Antonio, and assigned to duty at Ft. Ringgold, Tex. S. O. 130, Dept. Texas, Nov. 8, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING NOV. 12, 1887.

SURGEON WALTER WYMAN.—To proceed to Louisville, Ky., and Memphis, Tenn., as inspector, Nov. 2, 1887.

PASSED ASSISTANT-SURGEON F. W. URQUHART.—Relieved from duty at Cape Charles Quarantine, ordered to Norfolk, Va., Nov. 6, 1887.

ASSISTANT-SURGEON G. M. MAGRUDER.—When relieved, to rejoin station at Chicago, Ill., Nov. 3, 1887.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOV. 12, 1887.

SURGEON T. C. HEYE, detached from the Marion, proceed home and wait orders.

PASSED ASSISTANT-SURGEON T. C. CRAIG.—Detached from the Marion, proceed home and wait orders.

MEDICAL INSPECTOR H. M. WELLS.—Detached from the Trenton, proceed home and wait orders.

MEDICAL DIRECTOR GEO. PECK.—Ordered to Washington, D. C., as member of Examining Board.

SURGEON JAS. G. AYRES.—Ordered to the Galena to relieve Surgeon F. L. DuBois.

SURGEON F. L. DuBois.—Detached from the Galena, proceed home and wait orders.

PHILADELPHIA MEDICAL TIMES.

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No. 523.

DECEMBER 15, 1887.

VOL. XVIII

CLINICAL LECTURE.

ON A CASE OF IDIOPATHIC PERICARDITIS.

BY PROF. J. M. DA COSTA, M.D., LL.D.,

Delivered at the Pennsylvania Hospital, December 10, 1887.

GENTLEMEN:—This boy, an Italian, was admitted into the hospital on the fifth of this month. He came in very ill and evidently in great danger. His history was difficult to obtain, owing partly to his physical state and partly to his inability to communicate with us intelligently. Yet we were able to gather from him these facts: He has been in this country for two years; during this time he has been chiefly engaged in tailoring work. While in Italy he had, occasionally, attacks of sharp pain in the cardiac region, but no other symptom of heart disorder; the cardiac distress was not very marked. He never has had an attack of acute rheumatism, nor, indeed, rheumatism in any form. He does not recollect having had any acute illness previous to the occurrence of the cardiac pain. He was not subject to palpitation of the heart, and there was no dyspnœa.

Now, these are the statements I find in the notes; how correct they are I cannot say. He gave his history just

as I have told you, and some of his statements may be inaccurate: that one about the dyspnœa I should fairly question.

His present illness, the one for which he was admitted into the hospital, began about a month ago with a chill and severe pain in the cardiac region. Please note that. This was followed by dyspnœa and palpitation of the heart; he never had any pains in any other part of his body than the cardiac region. These symptoms continued until his admission; the pain he described as being a sharp, acute pain. On admission, the boy, as I have already told you, was very ill, but he had not a high temperature; his tongue was clean and pale; his bowels constipated. His only complaint was of pain and oppression in the heart and some difficulty in breathing. His face was extremely pale and somewhat swollen, so much so that his appearance suggested a kidney affection. The urine was examined, but it lent no countenance to this view. The specific gravity was 1020; it was of acid reaction, and free from albumen and from sugar. He was, as I have told you, excessively pale, and presented the appearance of great debility and anemia, without dropsy; there was not even swelling of the feet.

Now, gentlemen, the physical condition which this patient presented at this time are practically unchanged to-day. I will therefore make a careful examination before you and tell you what the physical signs were upon admission by telling you what they are now. I must say that in one respect the state is modified: his general condition is very much improved, his pulse is of better volume and strength and his dyspnea is not so marked.

So as to bring up his history to the point of the present examination, I will further state that he had no fever since his admission. When I say that he has had no fever, I mean that the temperature has been uniformly less than 100° and has been rarely quite 99° . The temperature therefore is very slightly, if at all, elevated.

I will now proceed to examine his condition. His tongue is clean and of good color. His respirations are 24 in the minute; his pupils are somewhat dilated. His lips are of good color and his ears slightly reddened as if from capillary stasis. His face has lost a good deal of the pallor and swelling which it presented upon admission. When now I examine his heart, I find a diffused impulse perceptible in the epigastrium and extending to the upper border of the sixth rib on the line of, or even slightly outwards from, the nipple. The transverse dulness in the cardiac region is distinctly increased, passing almost to the right edge of the sternum. We have thus a diffused impulse seen at the epigastrium and as far out as the nipple line. By placing my hand over this region, I find that while the impulse is diffused, it is only moderately forcible. When now I put the stethoscope over the heart, I find this state of things: A systolic murmur, rough in character, is heard at the apex of the heart, is perceived in the line of the anterior border of the axilla, also posteriorly at the angle of the left scapula. When I pass the stethoscope on to the base of the heart, especially towards the left, I find a double sound, apparently a murmur, but it is a friction sound; the second part of which (that which follows the systole), is much the more distinct, but broken up into several rather coarse kind of sounds. In other

words, we have a double pericardial friction, with a "to-and-fro" murmur, of which the second or "fro" part is split and rough. Of these, the first alone, strictly speaking, simulates a murmur. We further find that this friction sound is heard a little to the right of the sternum, where the so-called crackling sounds of pericardial friction are also present; but as I go away from the cardiac region these sounds become very indistinct; in the carotids, in that of the left side especially, a rather faint systolic murmur is perceived.

The lungs are clear on percussion. I hear the vesicular murmur distinctly at the lower part of the lungs; quite low down on the right side there is a slight impairment of resonance; in other words, slight congestion. His lungs are now comparatively clear, barring this slight congestion; he has still some shortness of breath, but the pain is much better. For the last two nights he has not required any opium for the relief of pain, which before this had been absolutely necessary.

I have told you that the physical signs are practically the same now as when he was admitted. So they are in the main. But the murmur at the apex is a little more distinct than when he first came in. On the other hand, the pericardial friction is not quite so marked as on admission; it has become softer, and is not the distinct "to-and-fro" sound which we first noticed. One other point I will ask you to note with regard to this sound: as on admission, it is very much increased upon pressure. By pressing on the stethoscope I develop it in greater intensity, and make it rougher. As I listen I can now make out a short, distinct, second cardiac sound which before was obscure.

Now, what have we here? Pericarditis, I have already told you, but of what character? There is no effusion of serum, but some plastic lymph has been here thrown out, most at the base of the heart, where there are recent changes. Here arises an interesting question; granted that this is a case of pericarditis, we must have another explanation of the systolic murmur which is heard at the apex, and also at the inferior angle of the scapula.

There must also be endocarditis—a lesion of the mitral valves, with insufficiency and regurgitation. Now, can we go further? Is this acute or chronic? The diagnosis I will make is this: The pericarditis is acute; the valve disease is chronic.

He once had pains in the cardiac region while in Italy. It is possible that this was the beginning of the mitral affection. He had no rheumatism, so far as we can learn. Now my opinion is that the valvular lesion is chronic. The increase in the size of the heart, the diffused impulse, the increased area of percussion dulness, are against the view that all has been recent, as this increase in transverse dulness is not due to a large effusion, which, I have already told you, does not exist.

But, what about the pericarditis? This was acute. The fact that the sounds have been modified under treatment, the history of the acute beginning, the pain and the dyspnoea which came on suddenly—all this shows the pericarditis to be acute. A recent, acute, plastic pericarditis, with soft lymph thrown out around the base of the heart, co-existing with old mitral insufficiency and regurgitation. So much for the diagnosis. Now, what is the prognosis? I think he will recover. He is recovering rapidly now. Of course, the disease of the mitral valve will remain, while the pericarditis will very largely disappear, perhaps entirely. He may get quite as well as before this attack came on.

Now, this is one of those extremely rare cases of idiopathic pericarditis; pericarditis without apparent cause. The majority of cases of acute pericarditis arise in the course of acute rheumatism. This boy has not had a sign of acute nor even of sub-acute rheumatism. Pericarditis also arises in the course of Bright's disease; he has not a kidney lesion. Then we must not overlook the possibility of pericarditis arising in pyæmia; morbid material in the blood after traumatism or an operation is likely to give rise to pericarditis. There is no evidence of injury, and he has not had the sweating nor the alternations of temperature which accompany pyæmia. Nor has there been any local cause, such as a

blow on the chest. It is a case of purely idiopathic pericarditis; a condition so rare that its very existence has been denied by some. But it sometimes happens nevertheless. I can recall seeing other cases, both in private practice and in hospitals. I know that the affection happens, and here is an illustration of it.

The next question is the treatment. He has been taking opium at night and Rochelle salt in the morning, with half an ounce of acetate of potassium daily. To this has been recently added tincture of the chloride of iron, twenty drops, three times a day. Turpentine stupes have been applied over the cardiac region, but no poultices.

He has had a nourishing diet, without stimulants. Under this treatment he has strikingly improved. The urinary secretion is freer than before taking the acetate of potassium and tincture of iron, and I see no reason for changing this treatment. He has greatly gained in appearance and I am now also able to say that there is an improvement in the physical signs.

The time has come when the application of a small blister over the heart will aid in the absorption of the exudation. I have said that he has not had stimulants. I would have given him stimulants if there had been any failure of the heart, or it had become decidedly irregular in its action.

It might also have been proper to have given digitalis, but the necessity for it did not arise. His pulse has been between 100° and 108° in the minute, and regular in its rhythm. We shall not give him digitalis while his pulse continues this way; if it become weak or irregular we will give him a grain of digitalis twice daily or oftener.

The acetate of potassium acts as a diuretic, and aids in the absorption of the lymph. The object of giving the chloride of iron may not be so clear to you, but it was given to improve his general condition and his blood, and the result has been good.

The Medical Analectic has joined the ranks of the weeklies. This will be welcome news to its readers. We wish it all success.

ORIGINAL COMMUNICATIONS.

CASCARA SAGRADA.

(RHAMNUS PURSHIANA, D.C.)

BY H. H. RUSBY, M.D.,
of New York.

IN the *Ephemeris* for October (pp. 984 and 1050), Dr. Squibb, in a half-apologetic fashion, attempts to explain his obstinate and unique antagonism to Cascara Sagrada. It seems that, some fifteen years since, Dr. Squibb introduced the Buckthorn (*Rhamnus Frangula*, L.) to the medical profession of America. Five years later Messrs. Parke, Davis & Co., of Detroit, introduced the Cascara Sagrada. In the meantime, the Buckthorn has never met with much success, and is known to the great body of the profession as a name only, while the success of the Cascara has been phenomenal. As the position of the *United States Pharmacopœia* in rejecting a drug that is successfully used by physicians almost without exception, and retaining one that is prescribed only by a small clique, is growing very equivocal, Dr. Squibb comes forward to show that the *R. Frangula* is the superior article, but that the *R. Purshiana* has been raised into prominence by vigorous advertising. To this the medical editor might, with great propriety, reply that if it were true, then the vigorous advertising referred to is one of the greatest of boons, for it has brought comfort to a half a million suffering mortals who might otherwise have languished on without assistance. But it is not true. Vigorous advertising can bring an article into notoriety, but intrinsic merit alone can give it a permanent repute.

What we are interested in is the fact that some of the positions taken in the articles referred to are so directly at variance with the facts as to shock the sense of scientific accuracy. The paper opens with the statement that "Rhamnus Purshiana is a sub-variety of the Buckthorn family." Now, to a botanist, this statement is merely laughable. It has absolutely no meaning when scientifically interpreted. It is precisely as though a genealogist were to attempt to define the relationship between John Smith and Peter

Jones by saying that "John Smith is an approximate cousin of Peter Jones's correlative Adamitean descendant." It is absolutely unintelligible. Sub-varieties do not belong to families, but to varieties, and these in turn to species, which form genera, the last going to make up families. But Rhamnus Purshiana is not a sub-variety at all. It is not even a variety, but a species, the rank of which, determined by a hundred botanists of distinction, has been recorded in a hundred standard works, and never questioned until it is so done in the unintelligible language of the writer here referred to. But, what is worse, we cannot believe that the language employed is the result of either ignorance or accident. It seems incredible that a gentleman so long connected with botanical drugs should be ignorant of the first principles of classification. It seems to be rather an attempt to lead people to entertain the false impression that the *R. Purshiana* is only a variety of the *R. Frangula*. That it has really produced this effect is apparent from the many inquiries that have reached the writer in his capacity as a medical botanist, as to whether the "Cascara Sagrada really is only a sub-variety of the Buckthorn!" In reply I desire to make public, in the most complete manner, the relations between the two.

In a foot-note I append, on the following page, for the benefit of those especially interested, a complete description of the two species. Here I present, contrasted in tabular form, the chief characteristic distinction.

From a consideration of the foot note it will be seen that so far from these two species being forms of the same, they really have almost nothing in common, being as distinct as two species in the same genus could be, there being no portion of the plant but shows its distinctive specific mark. And it is to be observed that we have here presented only the most obvious characters of the two species, the less conspicuous, but important characters of the seeds and other obscure portions not being referred to. The number of seeds in this genus is accepted as a most important classificatory mark. *R. Frangula* has 2, *R. Purshiana* 3, and

R. Catharticus has 4. If Dr. Squibb had desired but to break down the individuality of *R. Purshiana*, without bolstering up his own introduction, he would have associated it with our East American species, with which it has certain affinities, and of which it was formerly considered a form, and not with the wholly dissimilar European species. If anything could render the position more absurd, it is the fact that the *R. Frangula* is a plant of Europe, extending somewhat into Asia, but forming no part of that Asiatic flora which it is fair to suppose may have extended itself to some extent into our western borders.

Now, as regards the bark of *Cascara sagrada*, which is generally thrown down upon our market, we cannot deny, but that much of what Dr. Squibb's says in following, is true of it. Its identity is most uncertain. The fact has never been sufficiently impressed that the Pacific coast and Rocky Mountain region abound with other varieties of *Rhamnus* entirely distinct from the *R. Purshiana*, but which may easily be, and unquestionably frequently are, mistaken for it. That Dr. Squibb, himself, has committed the same error, we infer from the fact that he states that the plant is so abundant, that the bark can be purchased of good quality at 8 or 9 cents per pound; while we have little knowledge of the relative market prices of the barks, yet, this statement seems to us incredible. Our mind reverts to the appearance of the tree as we saw it, when making natural history collections in the Rocky Mountain region, under the auspices of the Smithsonian Institution, many years ago. It was by no means a common occurrence to find a

locality where it might truly be said to be abundant. The *R. Californica*, on the contrary, with its *var. tomentella*, was so. This species frequently covered acres with a shrubby growth, while single individuals of the true *R. Purshiana* were seen scattered through it. It seems perfectly reasonable to suppose that these two very similar species of barks are often collected promiscuously. This supposition is rendered almost certain when we consider the marked discrepancies between the action of some of the cheaper preparations, and of that coming from the house most interested in maintaining the reputation of this drug; in which, although made absolutely free to their competitors, they yet take a pardonable pride, (it being strictly of their own introduction), while they observe the most rigid precautions, involving great expense, to insure the genuineness of the stock which they employ. Certainly, a bark shipped great distances to the railway station and transported across the Continent, which can still be offered at 8 or 9 cents a pound, is fairly open to the suspicion of having been collected in the most careless fashion. From my knowledge of this plant in its native habitat, I regard the difficulties of securing an absolutely reliable stock of the bark as exceptionally great, and I should regard all cheap preparations of it with the gravest suspicion. With such an admitted cheap preparation made, and distributed by one who is interested in breaking down the reputation of one of the agents and, (as intimated), placed in the hands of those in sympathy with his prejudices, there is, unfortunately, little to be hoped from the series of comparative experiments which he claims to have instituted. To

R. Purshiana, D. C. (*Cascara sagrada*).

Plant.—Grows in river bottoms and plains as a small tree, the trunk often nearly a foot in diameter.

Leaves, 3 to 5 inches long. Margins denticulate serrate. Under surface strongly pubescent. Lateral veins 14 to 16, prominent.

Inflorescence.—In umbels of 10 to 20 flowers. Flower-stems longer than the leaf-stems, pubescent.

Anthers yellowish.

Fruit black, pear-shaped.

Seeds, three.

Habitat.—Rocky Mountains and the Pacific coast.

R. Frangula, L. (Buckthorn of Europe).

Plant.—Grows usually as a shrub in hedge-rows, etc., scarcely more erect than the well-known *R. catharticus*.

Leaves, 1½ to 3 inches long. Margins entire (or barely sinuate?). Under surface sometimes minutely downy. Lateral veins 10 to 12; merely nerve-like.

Inflorescence.—Only 2 or 3 together in the axils. Flower-stems short and smooth, or nearly so.

Anthers purple.

Fruit purple, rounded.

Seeds, two.

Habitat.—Europe and Asiatic Russia, except the north.

have appealed to the just senses of the thousands interested in such a trial, there should have been no question as to the genuineness of the products employed. But the trial, after all, is quite superfluous and can be instituted only in the interest of private enterprise. The medical profession of England, and America, have already decided this question with scarcely a dissenting voice. Both species of bark have now been on the market for a dozen years or so, and have had a fair trial. Fifty thousand physicians are daily using *Cascara sagrada* as the result of years of practical experience, while scarcely as many scores are using the Buckthorn. The annual consumption of *Cascara sagrada* bark is about double that of rhubarb, and it all goes through the prescriptions of physicians. To accuse this great body of practitioners of incompetence, and to assert that they are the victims of advertisements, which they have not the professional skill to test, is manifestly absurd, and can be by no means pleasant to those who are thus belittled. It is very evident that the ordinary practitioner of medicine is just as competent to recognize the fact that he has brought his patient to the point of defecating with regularity and ease, as is a Da Costa, or a Loomis.

That the U. S. Pharmacopœia has taken the ground that it has is the business of its revisers. If a few men, however eminent, are willing to antagonize the great body of American physicians, as they have done in the case of assayed drugs and other particulars, merely to humor the private prejudices of a certain number of their associates, it is their own misfortune. The revisers of the British Pharmacopœia, after a most thorough investigation, admitted *R. Purshiana* in preference to their own native species, and only added the latter as a concession to secure uniformity.

Even the domestic history of the two barks is sufficient to establish the facts in the mind of any unprejudiced person. Loudon, himself, in describing the *R. Frangula*, speaks of it as a "sharp purge," and its household reputation in this direction is perfectly well known. This reputation it has

not acquired through the employment of fresh samples, for the peasants are fully aware of the desirability of reserving the bark a long time before using. It is safe to say that where one dose is taken in a fresh condition, a hundred doses are prepared from bark which has been stored for years. So powerful, indeed, is the bark of the European Buckthorn, that it is recognized as one of the surest purges for cattle and horses, and it even produces serious results when eaten in pasturing. Now it must be evident to even the dullest intellect, unless that intellect be blinded by prejudice, that a drug which is used by mankind as a "sharp purge," and administered to cattle and horses as an irritant cathartic, is not an agent to be employed in long continued doses for overcoming chronic constipation; and the individual who, to indulge feelings of personal envy, will apply or imply the epithet of fool to every physician who subscribes to this very obvious proposition, will gain no credit thereby. The *cascara*, on the other hand, is noticeably mild in its action from the very beginning. It is this very property which has brought it into the universal esteem that it now enjoys. To single out such a drug for attack on the assumed ground of effects exactly opposite to those which have given to it its reputation, exhibits no less temerity than disregard for facts.

If we were not willing to accept the lesson taught by the domestic reputation of the two drugs, and if we had no confidence in the perceptions of the great mass of the medical profession, we should still have the testimony of the most eminent authorities in favor of *R. Purshiana*. No more competent corps of observers exist on either continent than the board of revisers of the British Pharmacopœia, and they have decided as to the pre-eminent merits of the American species. On the continent the great Senator has established its superiority by a series of comparative studies of so exhaustive a nature that they leave no doubt as to the merits of the case.

To multiply evidences on this subject is idle. There can be no better argument in favor of the superiority of

the Buckthorn than its foreign origin, which will doubtless lend to it a prestige in the eyes of a certain class of very un-American Americans.

Rhamnus Purshiana.—Leaves broadly elliptical, denticulate—serrate, pubescent beneath. Umbels axillary, peduncles longer than the petioles, pubescent. Petals embracing the very short stamens; stigmas 3. Fruit turbinate, 3 seeded. Shrub or small tree 10 to 20 feet high, with a trunk 9 inches in diameter. Leaves 3–5 inches long, and $1\frac{1}{2}$ to 2 inches broad, sometimes slightly cordate at the base, rarely acute, or slightly acuminate; lower surface strongly pubescent; veins 14–16, prominent. Umbels 10–20 flowered. Petals 2-lobed. Styles rather short. Fruit of the size of a large pea; black. Seeds plano-convex, without a groove; shining. Fruit pear-shaped. (From Torrey and Gray's Flora, of N. A.)

Rhamnus Frangula.—More erect than the common Buckthorn (*R. Catharticus*), not thorny. Leaves broader and more obtuse, entire or slightly sinuate, having sometimes a minute down on the under side. The lateral veins more numerous, diverging equally from the mid-rib almost the whole of its length. Flowers 2 or 3 together in each axil, all hermaphrodite; the minute petals, calyx-teeth, and stamens in fives. Fruit dark purple, of the size of a pea. In hedges and bushy places, throughout Europe and Russian Asia, except in the extreme north. In Britain rather more frequent than the common *R.*, but still rare in Scotland. Flowering in spring and early summer. (From Bentham's Hand Book of the British Flora.)

Loudon says of the same species: "Leaves quite entire, with 10 or 12 lateral nerves. Flowers whitish with purple anthers. Berries 2-seeded. The berries dye yellow, and the bark dyes a tawny color. A sharp purge, and a very certain purge for cattle."

The annual meeting of the Pennsylvania Forestry Association was held at the Hall of the College of Physicians, December 9th, at 8 o'clock P. M.; at which addresses were made by Dr. Rothrock, President of the Association, Mr. Bernard E. Furnow, Chief of the U. S. Forestry Division, Dr. Anders and others.

A NEW PATTERN OF AN OPHTHALMOSCOPE.

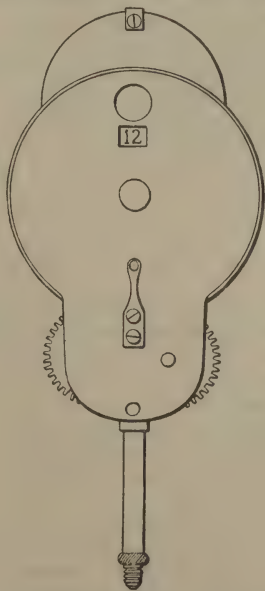
BY PETER D. KEYSER, A.M., M.D.,

Professor of Ophthalmology in the Faculty of the Medico-Chirurgical College, Philadelphia.

(Presented to the Section in Ophthalmology, International Medical Congress, Washington, D. C., September, 1887.)

THE nearest to perfection of an ophthalmoscope, that has been given to the profession, is the large one of Knapp, with the two discs of convex and concave glasses revolving over each other. This instrument, however, is too large and too expensive for general use. Furthermore, it is not arranged so that the rotation of the discs can be made with the fingers of the hand while holding it before the eye. It is so large that it will not go under the brow and close to the eye, but rests upon the brow, which keeps it a distance from most eyes.

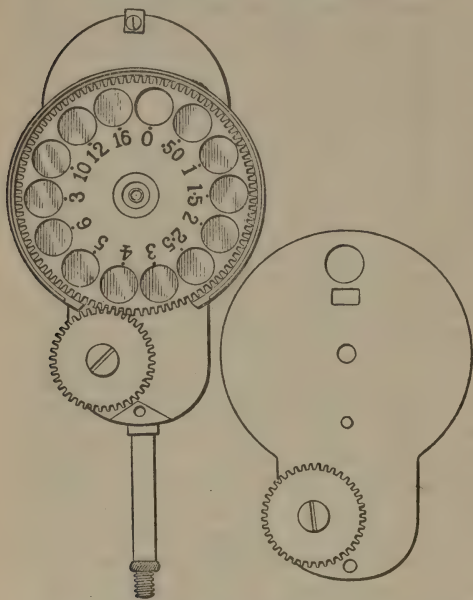
The great desideratum in an ophthalmoscope is to be able to make all the changes in the glasses during the observation without taking it from the eye, on account of the activity and ready involuntary changes of the accommodation. Most all of the late patterns of this instrument require to



be removed to adjust some weaker or stronger glass, or to make combination with the disc, that is rotated and

regulated by the finger while making the observation.

The instrument I present you is an improvement on Knapp's original one. It is composed of two discs, containing,



respectively, convex and concave spherical glasses, revolving immediately over each other, and so arranged that either or both discs can be worked by the fingers and thumb of the one hand holding the instrument before the eye. It is much smaller, so that it can be introduced under the brow. It has a movable mirror.

The lenses are in depth of measure as follows:

Convex, 0.5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 12, 16.

Concave, 0.25, 0.5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 16.

With these glasses any combination can be made, and any amount of hypermetropia, myopia and astigmatism can be measured.

It is made by E. Fox, N. W. corner Chestnut and Seventeenth streets, Philadelphia, and is put up in a neat case, with two large convex lenses for indirect observation.

THE EX-RESIDENT PHYSICIANS OF THE PHILADELPHIA HOSPITAL (BLOCKLEY) had a re-union and dinner last week at the Hotel Bellevue, at which Prof. Alfred Stillé presided. There were sixty-five covers laid. It was decided to hold a similar meeting next year.

THE CAUSE OF DIPHTHERIA IN OIL TOWNS.

BY EVAN O'N. KANE, M. D.

THE following query appeared in the MEDICAL TIMES for Nov. 15, 1887:

"Will some experienced guessist inform us why the oil towns have so much trouble with diphtheria? Since the development of oil territory in Washington county this disease has become very prevalent."

It does not need, I think, a "guessist" to say why this is the case. It is not the presence of the oil, but the fact that an ephemeral population is suddenly crowded into a small space. The forest is cut down immediately around them, so that the evil influence of newly exposed earth exists, while there is no sweep of health-giving winds. A camp exists with no military discipline to enforce "policing," and the quickly earned, quickly lost earnings, of the oil men, surround them with camp followers of the vilest character. In fact the oil population is a highly immoral one. Living at "high pressure," gambling but little, drinking, dancing and gambling much, the grown people will not slumber, and their custom of turning night into day makes these hours so noisy that the children cannot sleep if they would. Then, too, the wives and mothers who have accompanied their husbands have, as a general rule, married as mere girls and know nothing of housewifery or the proper care of their children. Here we find streets of board shanties, built of damp, unseasoned lumber, the best of which are only lined with cheese-cloth, on which a cheap wall paper is pasted.

Through these houses rain and snow, frost and draughts find easy way, to palliate which discomforts roaring gas-fires are kept burning, which, by the extreme alternations in temperature that they occasion, make matters only worse. The "city" has located itself in the vicinity of the wells; *cæteris paribus*, the locators of the first wells sought the lowest ground to commence drilling and the houses planted themselves by the nearest springs. Each household's garbage, wash-water and sewage of all kinds, is either thrown out of the front door to mix with the deep mire of the street,

or into the drain at the back of the house formed by the bed of the adjoining rivulet. The street, composed as it is of soft forest loam, is soon ploughed up by the heavily loaded wagons, till its mud, kept from drying by admixture with oil and sewage, is literally knee-deep, with here and there great pools of filth, which would be stagnant in the sun if it were not that all travel to or from the wells must drag through them.

The livery and boarding stables, of which every oil town has a number, are built with party walls in common with those of hotels and dwellings. They are never properly cleaned and large heaps of straw, sawdust and manure are left to rot in their corners, or are raked out on the street. Each household contains as many lodgers as can be packed into the bunks, filled with mouldy hay and straw, which literally cram the upper rooms.

When, as soon happens (if such houses are not burned for insurance), the bed-bugs and other vermin become unendurable, the house is vacated for a day, and the steam from the nearest boiler, not in use, is turned into the building, its doors and windows are closed, and it is subjected to a thorough roasting, sufficiently hot to actually cook the little intruders. After this is accomplished, the bedding is not aired and dried, but is often left to mildew in the bunks. Under such favorable conditions there is no limit to the spreading of diphtheria, once started, save the dread of infection.

This is so great that while it does not prevent the sick-room being invaded by crowds of gossips, no one can be found to help with the nursing.

Another thing very noticeable about diphtheria in our oil country, distinguishing it from that of other localities, is its tendency to become gangrenous and to terminate fatally. I think the explanation of this is not difficult; its victims are, if I may be pardoned the expression, half rotten before their infection. It would be no overestimate to say that three-fourths of all the adult inhabitants are more or less tainted by venereal disease, and in consequence their children generally show some of the landmarks, either in their peg-teeth, flattened noses, blotched

faces, and bleared eyes, or in a large-headed, clear-complexioned and strumous appearance.

Among such children the ravages of diphtheria are most felt and its remedies are often powerless to arrest it.

The wonder is not that there should be so much, but that there should be so little diphtheria.

KANE, McKean Co., Pa.

NOTES FROM PHILADELPHIA CLINICS.

A VACCINATION that "takes" at once and is well in a week, is a spurious vaccination and is no protection. Humanized virus acts more gently and certainly than bovine. Virus should not be taken from a child that has not had at least some fever; nor from one that has had high fever. If a child has a tendency to scrofula, an outbreak will probably occur after vaccination. The crust or scab should be taken on the fifteenth day, and the pus adhering to the under surface should be scraped off. At about three months of age is the best time to vaccinate, in the opinion of Prof. Waugh.

For dusting on the inflamed skin of a baby, oxide of zinc is good. A pinch of phosphate of soda in the milk, in cases of constipation in children, is frequently sufficient. If a child must have a purgative, Prof. Atkinson says to give it olive oil instead of castor oil.

For a case of lupus in the form of a fungoid, bleeding ulcer on the bridge of the nose, spreading towards the eyes and the cheeks, Prof. Shoemaker prescribed the following:

Touch the ulcer twice a week with strong carbolic acid; every day apply:

R Cinchonæ rubræ.....3 ij
Bismuthi subiodidi.....3 ss
Zinci oxidi.....3 j

M.

And administer internally:

R Olei morrhuæ.....3 iv
Ter in die.

AORTIC INSUFFICIENCY.—Dr. Osler exhibited at the Philadelphia Hospital two cases of aortic insufficiency in men over sixty, with visible pulsation

of the carotids, brachials, and radials, Corrigan's pulse, and hypertrophy of the left ventricle. He recommended that, as long as compensation was perfect, no treatment, except perhaps nuxvomica or strychnine, should be given; but, as soon as compensation fails, digitalis is beneficial.

PSORIASIS.—Prof. Shoemaker uses the following treatment, with occasional changes, for psoriasis:

R Menthol.....gr. iij
Acidi carbolic.gtt. v
Ung. hydrarg. nit.3j
Adipis.3ss.

M. Ft. ung. Sig. Apply on affected parts once daily, having previously used the following to clean off the crusts, etc.:

R Tr. saponis viridis,
Aque.āā f3ij

M. Sig. Put teaspoonful on sores, and wash well till lather is formed; rinse off; then apply above.

Internally he administers

R Syrupi acidi hydriodici. . gtt. v
Increase to fifteen drops thrice daily.

ULCERATIVE ENDOCARDITIS.—Dr. Osler exhibited the heart of a patient who, upon entrance, was thought to have phthisis, but in whom the post mortem indicated an acute ulcerative endocarditis; the phthisical symptoms, hæmoptysis, dyspnoea, and night-sweats being due to obstruction of the lungs from the heart lesions.

CARBUNCLE.—In carbuncle, Dr. White recommended the application of a flaxseed poultice on which enough of a combination of turpentine, 3j, and compound resin cerate, 3j, had been melted to cover the whole surface of the poultice.

TO RENDER THE HANDS ASEPTIC.—For deodorizing his hands after contact with offensive discharges, Dr. Goodell first washes them with soap and water; then with turpentine; and lastly with the 1 to 1000 bichloride solution. He does not believe cancer to be inoculable, as he has repeatedly had raw surfaces upon his hands in contact with cancerous tissues.

TO AFFORD immediate relief in acute otitis, Prof. Pancoast dips a pledget of cotton in a solution of atropine, gr. xl to 3j, and inserts it into the external auditory meatus

Prof. Gerhard has found that by applying to a chancre a solution of bichloride of mercury, 1 to 1000 or 1 to 2000, he can cure it some two weeks sooner than by the ordinary treatment.

The bichloride also acts well when used by inunction with lanoline.

PHARYNGITIS.—In cases of sore throat, especially in what is known as "minister's sore throat," Prof. Garretson advises the following formula:

R Acidi carbolic.gtt. xij
Tinct. iodi comp.gtt. lxxv
Glycerini.f3 ij
Aque.f3 ijss

M. Sig.—Use as a gargle, properly diluted.

In his clinic at the Medico-Chirurgical College, October 21st, Prof. Shoemaker exhibited a patient cured of pemphigus, which had existed since the late war. The patient had been treated simply by hypodermic injections of arsenious acid, beginning with gr. $\frac{1}{10}$ and increasing to gr. j twice a week.

A GOOD MOUTH WASH.—Prof. Garretson's favorite stimulating and cleansing wash, after an operation involving the mouth or the adjacent parts, is

R Tinct. myrrhæ.
Tinct. capsici.āā f3j
Aque.f3 iv M.

To this some phenol or thymol might be added, if desired.

OPERATING FOR CANCER.—At his clinic at the Medico-Chirurgical College, Nov. 16, Prof. Pancoast exhibited a woman on whom he had operated fifteen years ago for cancer of the breast, and in whom, after fifteen years of immunity, the disease had lately returned. He again removed the growth, and the patient is doing well. At the same clinic he operated on a patient for epithelioma, removing all the fingers of the left hand and the first row of carpal bones, but preserving the thumb.

JABORANDI FOR ERYSIPELAS.—Prof. Waugh says that since he has used jaborandi in erysipelas, he considers it an insignificant disease. He gives twenty drops of the fluid extract every two hours, until it produces perspiration. Then he remits the treatment until the erysipelas shows signs of returning, when the jaborandi is resumed. For two years he has had not the slightest difficulty with any case.

CANITIES.—In cases in which grey hairs make their appearance, a few at a time, if the white hairs are at once pulled out, pigmented hairs are likely to grow from the same follicles.—*Prof. Shoemaker.*

For a case of chronic sycosis, Prof. Shoemaker prescribed five drops of Donovan's solution *ter die*, and locally:

R Olei cadini.....gtt. xx
Plumbi oleatis
Lanolini.....āā. 3j

M. Apply locally.

CORNEAL INFLAMMATION.—For irritation of the cornea, Prof. Keyser considers iodine ointment the best.

R Iodi.....gr. iij
Lanolini.....3j

M.

ECZEMA.—Prof. Shoemaker prescribed for a very bad case of chronic eczema, involving the whole body, and of several years standing, this treatment:

R Aloini.....gr. $\frac{1}{2}$
Tinctura nucis vom.....gtt. v
Ext. hamamelis fluid.....gtt. v
Tinct. gentianæ comp.....f3j M.
Sig.—Capiat haustus *ter die*.

Give an alkaline bath three times a week, composed of two handfuls of soda to twenty gallons of water, and let him apply the following ointment:

R Bismuthi subnitrat. 3ij
Glycerini.....
Aque calcis. āā f3 iv
Creasoti.....gtt. iv
Zinci carbonatis (impur).....3 ss

M.

FOR OBSTINATE VOMITING.—A Seidlitz powder broken into four and one part given every fifteen minutes is sedative to the stomach.—*Prof. Woodbury.*

ANTHRAX.—Prof. Goodman prefers to scoop out a carbuncle in the case of a patient with a strong constitution, dust with iodoform and treat as an ordinary wound. In cases of a succession of boils, he gives chloride of iron and chlorate of potash.

IN OPHTHALMIA NEONATORUM, if the ulcer has not reached the cornea, order the eyes to be cleaned every half-hour with absorbent cotton, and alternately after each cleansing have applied boric acid, gr. v to 3j of water, and nitrate of silver, gr. $\frac{1}{4}$ to 3j, as recommended by Prof. Keyser.

Prof. Waugh believes diphtheria to be at first a local disease, and considers nascent chlorine the best agent for destroying the diphtheritic patches, and thus preventing constitutional symptoms. The chlorine he makes thus:

R Potassii chloratis.....3j
Acidi hydrochlorici.....f3 iss

Misce et adde

Tinct. ferri chloridi.....f3 ij
Aque, q. s., ad.f3 iv

One drachm every two hours for a child of three years and upwards. Give a drink of water just before the medicine, no water with it, and none after.

FOR CORYZA.—Prof. Woodbury advises a purging with cascara, hot drinks, confinement to the house for a day or two, and quinine, ten to twelve grains, for several days after.

PHILADELPHIA HOSPITAL.—Dr. Musser diagnosticated a case of marked thoracic and abdominal enlargement as old pleuritic effusion of the right side, with dislocation of the liver downwards, and enlargement of the right kidney, with pyelitis. The patient, a hard drinker, had had a pleurisy five years ago, and chronic malaria for some years, and is greatly emaciated.

—In a case of profuse papulo-squamous syphilitic eruption covering the entire body, Dr. White recommended bathing night and morning in warm water, rendered alkaline by washing-soda, and to which a quantity of bran has been added. After lightly drying his body, the patient powders the whole surface with calomel. With this is combined the usual internal treatment.

POETRY.

POCULUM CHARITATIS.

[Inadvertently omitted from the proceedings on the occasion of the presentation of a Loving Cup to the College of Physicians of Philadelphia.]

When Vorigern, the British King, at Thong-caster was guest,
'Tis said the maid Rowena, at her father's stern behest,

Brought forth a chalice filled with wine, and low on bended knee,
She offered it unto the King. Then rising gracefully,
With winsome smile and laughing eyes, and full of loyal zeal,

She greeted him in sweetest voice, "Liever
Kyning" and "wass hael!"

King Vortigern was so bewitched by fair Row-
ena's charms,

He longed to clasp the lithesome maid within
his brawny arms;

And I believe that's what he did, 'tis true I do
not know,

For this erotic scene transpired twelve centuries
ago.

'Twas thus from Hengist's daughter's lips, the
Wassail cup received

The name it bears; and hist'ry says, if it may
be believed,

'Twas soon debased from its high place. At
ev'ry drinking bout

"Wass hael!" "Trink hael!" the roisterers
would to each other shout;

While deep and frequent draught's they'd take
from out the wassail bowl,

Until their words grew scant, and they from off
their seats would roll.

At first, it seemed as if the cup did foster friend-
ship true,

And on the dark and gruesome days, would let
some sunshine through;

That it gave strength to warrior's hearts, and
to their breath as well,

Making their speech quite vehement, and their
hard heads to swell.

But soon it led to orgies wild, to meetings in-
harmonic;

Instead of gently "toning up," the wassail grew
teutonic.

The courage which it gave was "Dutch," and
men whose eyes were clear

Saw that their best and gayest friends went
soonest to their bier.

In fact, as years rolled on, the word, at last, did
come to mean

Not hospitality, or mirth, but any drunken
scene.

* * * * *

'Twas in the year nine-forty-three, or somewhere
there about,

A Benedictine Abbot, with the slightest twinge
of gout,

Declared that for the wassail cup a fitting place
would be

Upon the table at the end of the refectory.

So that, when at their frugal meals, his Benedic-
tine brothers

Might take a draught of *Vinum Hip*, and offer
it to others.

He argued that, in wholesome deeds, in acts of
charity,

In welcoming the hungry poor, whoever they
might be,

In giving food to those who craved and drink
to those athirst,

Among their many duties stood in rank the very
first.

"Whate'er we eat, whate'er we drink, with
others let us share,—

To love and succor others must be every friar's
care."

Thus spoke the Abbott while he looked within
the tempting cup;

Then *smilingly* he gazed around and gently took
it up.

He ran his nose within its depths. A pause did
then ensue

Which lasted 'till the Abbot's face assumed a
fiery hue;

Quickly then his shaven pate bobbed up again,
while he

Drew a deep and sudden breath and grasped his
rosary.

Speechless he sat a moment, then he spoke in
cheerful voice,

"Ah, brothers, life is very short, and fleeting
are its joys;

Drink while ye may; let others drink from out
this cup '*free gratis*,'

For this shall be a loving cup—*poculum chari-
tatis*."

And so it has come down to us—the wassail cup
no longer,

But the pure and warming, loving cup to make
our friendships stronger,—

"That maketh glad the heart of man," and
turns him t'ward his brother

With open hand and smiling face, and love for
one another.

To-night we pass the loving cup, and all you
Fellows know

Ours hath a charm to set our hearts with noble
thoughts aglow.

It comes to us from women's hands, so gen'rous
and so tender;

To these fair dames let each of us our grateful
homage render.

[The President of the College takes the cup]:—

Ah, yes, Sir Wier; take a deep draught, that you
may not grow WIERY;

You sit too near the large FURNACE to feel
right bright and cheery.

And why is WOOD so near at hand? I am
sure you'd not supply

An ASHURST with more fuel while you look
so hot and dry.

There's a KEEN fellow over there, who looks up
quite astonished,

As if I had DA COSTA'd him; but he scarce need
be admonished

That GOOD'ELL come from foolish words when
they set men a laughing;

Like PEPPER, mixed with windy food, or like
the wine we're quaffing,

They help us "stomach" many things we're
called upon to take in;

STILLÉ (still *he*) may see no good results from
the effort I'm makin',

So let the loving cup pass 'round. Each one of
us WOODBURY

All harmful thought that we may be both
innocent and merry.

BILLINGS and cooings, too, we'll have, for "the
goose it hangeth high,"

Twelve dozen men do smile on me when I catch
GROSS's eye.

I know you think my jests are poor, but if they
should deprive you

Of animation, so to speak, there's HARTSHORNE
to revive you.

[The name of the author of the above is un-
known to the editors; our readers will join us
in thanking him for his delightful effusion.—
Eds. P. M. T.]

TRANSLATIONS.

INJECTION OF CARBOLIC ACID FOR HÆMORRHOIDS.—Sonnenburg, in a communication to the *Berliner Klinische Wochenschrift*, speaks highly of the utility and advantage of the injection of a concentrated solution of carbolic acid as practiced by American physicians in the treatment of hæmorrhoids. He recommends its use, as he has found the method highly serviceable during the last few months in many cases.

For the injection he prepares a solution of carbolic acid and glycerine, 1 : 4. According to the size of the hæmorrhoid, he injects from 2 to 4 drops of this solution, employing a curved needle which throws the medicament deeper into the base of the pile and with more ease and satisfaction than a straight needle. The operation is comparatively simple with hæmorrhoids situated near the external anal edge; more difficult with those seated higher up; nevertheless, with all, it requires some practice.

As a rule, he finds the injections painful the nearer they are to the external anal orifice; the pain soon disappears, however. In operations undertaken on very sensitive females the pain was scarcely noticeable.

On the fourth day, when the first movement of the bowels is obtained, the soft, sloughing hæmorrhoid causes no difficulty, neither is there any danger of complications to be feared from the use of this method.

Its advantages, as Kelsey and Lange with justice observe, are the freedom from pain, permitting the patient to follow his avocation undisturbed, and the disuse of chloroform or ether, with its dangers and disagreeable after-effects. He prefers this mode of treatment in all small or medium sized piles. For the treatment of external hemorrhoids, hypertrophic and easily prolapsed rectum, and extensive large hemorrhoids, he prefers cauterization, as practiced by Langenbeck, most decidedly.

CHRONIC PERITONITIS.—The following case is reported by Dittmer, of Berlin.

Martha B.—, 8 years of age, was prostrated with all the symptoms of an acute gastro-enteritis. The vomiting

soon subsided under ice treatment. Diarrhœa persisted obstinately. Remittent fever occurred, so that, in a week, the child presented the picture of an infantile abdominal typhus. Roseola were not found. Slight tympanites present, with pains, especially marked in the right hypochondrium.

In the middle of the second week tympanites gradually increased, with pain, spreading over the whole abdomen, so that now a beginning peritonitis was diagnosticated, instead of typhus, and suspicions were directed to a probable tuberculosis of the intestines and peritoneum. The fever continued equally remittent. Diarrhœa was still present; the child emaciating rapidly. A fluid effusion could not be ascertained with certainty. This was only possible on the third of August, four weeks after the beginning of the sickness. About this time the diarrhœa lessened, also the fever. As the appetite returned, patient improved markedly. The effusion, however, increased. This continued until the end of August, when the fever again increased, the pain and tenderness of the abdomen were greater, the appetite worse. On the 29th of August, the abdomen was enormously expanded; the under edge of liver stood the breadth of three fingers above the arch of the thorax. In the right hypochondrium, about one finger's breadth above the edge of the thorax, in the mammary line, a prominent, red, fluctuating spot, about the size of a nuckle had formed, under which a defect in the abdominal walls was noticeable. A second similar, bean-sized spot was observed in the linea alba near the umbilicus.

As the first spot increased in size in the next few days, and as the fever increased, with all the characteristics of pyæmia, he decided to incise. On the 2d of September, free incision was performed, when six quarts of pure, healthy and not at all bad smelling pus were discharged.

Through this incision the lower lobe of the liver could be distinctly traced; the peritoneum within and the internal muscular tissue of the abdomen without, presented such a large cavity, for pus accumulation, that its borders could not be ascertained.

Under free drainage, salicylic bandages, and daily dressing with permanganate of potash, the temperature fell to normal in the days following the operation. The threatened second perforation at the umbilicus improved and lessened. Patient recovered rapidly under the circumstances, and was able to leave her room on the 9th of October. The profuse discharge of pus decreased after the operation, the wound united and became smaller. Drainage tube was removed near the end of October, and complete recovery seemed assured, when, contrary to all expectations, the discharge of pus increased during the middle of November. Pain in the abdomen and fever followed, and in the region of the old perforation, at the umbilicus, a second perforation formed, although the incision of the old was still open and the pus discharging unhindered.

Perforation of this occurred Nov. 22d. Upon injection of the operation wound, the fluid would escape through the second perforation, and *vice versa*. The perforation was incised and drained; again the patient improved. The perforation at the navel closed about New Year's. The wound of incision, however, kept open and discharged a very small amount of thin pus.

On the 8th of March 1880, the probe was introduced into the operated perforation, entering about four inches without meeting any obstruction. Lateral motion of the body to any extent was impossible, however.

As the general health was perfectly normal, and the continual discharge of pus was disagreeable and unpleasant to the patient, the wound showing no tendency to recover, he deemed it advisable to inject tincture of iodine into the fistula, with the hope of obliterating the tract. The first injection was made on the 8th of March; then on the 12th, 19th, 27th of March, and 11th of April; they were borne well, causing no distress, and bringing about the complete and definite cure of the patient on the 15th of April, the day of her discharge.

He has had many opportunities of seeing this patient, who has during this time developed into a blooming, healthy young lady.—*Berlin Klin. Woch.*

OXYGEN IN THE TREATMENT OF ECLAMPSIA.—In two severe cases of eclampsia with albuminuria during pregnancy and labor, Bompiani (in "*L'Osservatore*") employed oxygen inhalations. In the first, a fatal case, he endeavored by its use to remove the asphyxia and lung difficulty, with only temporary success; while in the second case it was used, as a last resort, to remove the œdema, anasarca and eclamptic symptoms, with marked benefit.

The first case was that of a young woman, twenty-seven years of age, who, at the termination of the labor, was attacked by recurrent convulsive paroxysms of an intense form. Bromide of potassium, chloral hydrate, leeches, warm vaginal douches, and hypodermic injections of morphine, were of no avail; coma and asphyxia increased. To relieve the latter, three balloons, of thirty litres each, of oxygen were given her to inhale. A slight improvement followed, labor was induced, and ended; yet the patient died in spite of the renewal of the inhalations.

In the second case, the patient, a young woman, at the end of labor was attacked by strong convulsions. Albumen was present in her urine, as well as in that of the first case. Forceps were applied and a living child born. Immediately after labor the attacks were renewed, when oxygen inhalations and ether injections were used, which instantly subdued and controlled the convulsions.

The author, in presenting these two cases, desires to draw no inferences; but simply calls the attention of the profession to this mode of treatment, and recommends its use in similar cases.

TREATMENT OF MALIGNANT PUSTULE BY IODINE INJECTIONS.—In a case of a butcher, 16 years of age, who was suffering with malignant pustule, M. Guyon administered five parenchymatous injections of Lugol's solution (about 1.50 Grms. in all) into the middle and around the base of the induration. Alcohol was administered internally. The patient recovered, owing, it was thought, to the antiseptic action of the iodine, both local and general.—*Gaz. Méd. de Paris.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DEC. 15, 1887.

EDITORIAL.

CASCARA SAGRADA.

PHYSICIANS, when writing prescriptions, generally concern themselves too little with the source and character of their drugs, leaving the responsibility of their selection, preparation and dispensing in the hands of some pharmacist whose personality may be, and often is, entirely unknown to the prescriber. When, as usually happens, the prescription falls into the hands of a reputable pharmacist, the interests of both patient and physician may be scrupulously cared for; and this labor-saving arrangement is of decided practical advantage to the physician. But, on the other hand, when, as sometimes occurs, the prescription falls into the hands of a dispenser whose principles are of the commercial standard, rather than professional, the pecuniary interest of the pharmacist will then take precedence of all others. Purely commercial considerations therefore may decidedly affect the use of remedies. We do not here refer to the substitution of the cheaper alkaloids of cinchona for the more expensive ones, or the dispensing of atropine for duboisine; these are instances of fraud pure and simple, and can easily be guarded against by ordering the prescription to be filled by an honest apothecary, or, in his absence, the physician can obtain pure drugs directly from the manufacturers of established reputation.

The point which we consider of greater importance to the physician is the quality of pharmaceutical preparations of drugs as they are dispensed by

the pharmacist. The medical profession demands that preparations should be as nearly as possible of uniform composition and of standard strength; and every physician should find out reputable pharmacutists, deserving of the confidence of the community, and direct their patients to them, in place of others who have no such reputation to sustain.

To the wholesale purveyors of drugs the physicians should also devote attention, and where the interests of medical science are ever held to be paramount, they also deserve acknowledgment and appreciation. If the physicians of this country do not have their prescriptions filled with pure preparations of standard quality, the fault lies with themselves; since there are firms possessing great enterprise and energy, who, at large outlay of capital and labor, succeed in verifying the true characters of the drugs which they employ, and are scrupulously careful in maintaining the quality of their products, so that they shall conform to a uniform standard of excellence. That they should do so is a matter to which no practitioner of medicine can afford to remain indifferent.

We regret the acerbity of Dr. Squibb's recent discussion of the value of one of our indigenous drugs which was introduced to the profession by Messrs. Parke, Davis & Co.; and we confess that our sympathies are with the Detroit firm in this matter. Dr. Rusby, in a valuable communication which appears on another page, and which successfully disposes of Dr. Squibb's objections, takes the correct ground when he declares that clinical experience must decide the value of remedies, and that the permanent reputation of a preparation depends upon intrinsic merit, and not upon advertising. Although printer's ink may be useful in

introducing a remedy, it will soon be laid aside if it cannot stand the crucial test of clinical experience.

Physicians are warranted in protesting against the dogmatism of the laboratory when it assumes to direct their judgment in practical therapeutics against the teachings of daily observation. We would not underrate the value of purely scientific investigation into the characters, constituents, and relations of drugs, nor of the usefulness within a limited range of physiological experimentation; but we must never forget, in the words of Professor Leyden, that "It is time to remind the practitioners of our day that the inexhaustible source of all knowledge and progress in medical art is observation at the bedside of the patient." Clinical experience has given *Rhamnus Purshiana* a position in therapeutics which the criticism of the laboratory cannot affect; it has been accorded recognition by the British Pharmacopœia, and deserves and will attain official standing in our own at an early day, in response to the general demand of the profession. F. W.

PRACTICAL ANTISEPSIS IN OBSTETRICS.

THE general adoption of the antiseptic system in obstetric practice has been greatly obstructed by the absurdly complicated details prescribed by some authorities. The uterus and vagina of the lying-in woman were considered as repositories of poison, which required the most active treatment in order to prevent general infection of the system.

Practitioners with common sense and many years' experience well knew that many of the asserted dangers were imaginary, and hence ridiculed the elaborate campaign instituted by metropolitan teachers against the apprehended

invasion of the lying-in women by bacilli, cocci, or other infective agents. The vaginal and intra-uterine injections of strong disinfectant solutions, the vulvar antiseptic pads, and repeated douches of the genital tract during the progress of the labor, and all the other elaborate ceremonial developed under the influence of authority, threatened to swamp the germ of fact in the sea of circumstance by which it was surrounded.

Latterly, some progress has been made by cutting off all unnecessary detail, and basing practical antiseptics upon established principles.

In a recent number of the *Berliner Klinische Wochenschrift* (No. 37, 1887), Dr. W. Bokelmann, of Berlin, has, in a brief, practical paper, laid down the following rules and deductions:

The healthy puerpera is aseptic. The danger of infection comes to her from without. There being no infectious material in her genital tract, the latter requires no disinfection, in accordance with the principle that "there can be no disinfection in the absence of infectious material."

The hands and instruments of the accoucheur are probable sources of infection. These must, therefore, be thoroughly disinfected before coming in contact with the woman's genital tract.

In order to avoid introducing infectious material which may adhere to the body of the patient, the external organs must be thoroughly cleansed with soap and water, and then washed with an antiseptic solution. The vaginal canal should also be washed out once with an antiseptic solution before an examination is made.

The most practical disinfectants are solution of mercuric bichloride, 1-5000, for the hands of the accoucheur and the genitals of the patient; and a three

per cent. solution of carbolic acid for instruments.

No unnecessary examinations of the patient's genital tract should be made.

After the cleansing and antiseptic vaginal douche above mentioned, vaginal and uterine injections are needless and often harmful, and should not be used unless there is evidence of septic infection manifested by fever or offensive discharge.

Intra-uterine douches should not be practiced unless there is clear evidence of infective material in the uterine cavity.

When peri- or para-metritis are present, intra-uterine douches are of no benefit and may be injurious.

Strict cleanliness of the patient and her surroundings must be insisted upon, but too much handling of the former must be avoided.

These details are neither complicated nor difficult to carry out. They are rational, practical and efficient. G. H. R.

OF INTEREST TO PHILADELPHIA PHYSICIANS.

AN exceedingly interesting book is that of the Fairmount Park Art Association, containing the signatures of its members. Among the seventeen hundred names contained in its pages are those of nearly every distinguished Philadelphian since 1870. As an autograph book it is unique, and its value runs into thousands of dollars.

We confess that we felt disappointed to see that so very few physicians had inscribed their names in it. Out of the many who have made Philadelphia medicine famous, but forty-two names appear on this roll. Among those are four of the University staff, two of the Medico-Chirurgical, and not one of the Jefferson, Polyclinic or Woman's College.

It is difficult to believe that Philadelphia physicians are indifferent to the merits of an association whose objects are so noble as this. Physicians are to be seen enjoying the beauties of the Park as frequently as any other class. Their homes give evidence that as individuals they are not deficient in artistic tastes.

Our explanation of their neglect of this association is this: Physicians, if busy, are terribly tormented by those pests of the day—agents, book agents, manufacturers' representatives, people who inveigle one into subscribing for works that come out in "parts," and make life miserable for many months subsequently, and annoy the physician to an extent which those outside of the profession can scarcely realize.

Hence, if a man enter the consulting room with a subscription book under his arm, he has little chance for a favorable hearing.

Our attention was attracted to this subject by noticing in the Art Union of New York a proposal to form in that city an association similar to the one which has accomplished so much good in Philadelphia.

W. F. W.

LETTERS FROM SPECIAL CORRESPONDENTS.

PARIS.

PROFESSOR SEGOND ON URINARY ABSCESS; DR. PINARD ON INDUCTION OF PREMATURE LABOR; DR. MAURIAC ON TREATMENT OF ACUTE GONORRHEA; M. POULET ON THE USE OF THE HIPPURATES; THE LATE WASHINGTON CONGRESS, ETC.

By the name of Abces Urineux the French understand infiltration of urine, a condition often met with in urethral strictures, and one that usually requires very prompt action on the part of the physician. Professor (agrégé) Paul Ségond, in a late clinic at the *Hôpital de la Charité*, gave the history of a case, and, in discussing the treatment, mentioned several details of

importance. The patient, a man of 44, had, he said, many times to battle with attacks of gonorrhœa; and, two years ago, he noticed that he had considerable difficulty in urinating. Some six weeks ago, without any cause that he knew of, he found that he had a tumor about the middle of his perineum, which increased rapidly and gave him pain in walking, and finally led him to apply to the hospital for treatment. The interne passed a sound (No. 10), and found that it encountered and passed a stricture in the bulbous portion of the urethra. The perineal swelling was ovoid, fluctuated and was painful and tender to the touch. There was no change in the color of the skin above it, nor of any ordinary manifestations of abscess. Upon pressure, it did not disappear nor empty itself into the canal. It was no doubt a subacute urinary abscess from infiltration of urine. Professor Ségond divides the complications of strictures of the urethra into three groups. First, complications arising from the natural phenomena of the stricture; that is to say, retention of urine and impassability. Next, the ascending inflammatory conditions consequent upon the primitive lesion; these may pass up to the bladder and on to ureters and kidney. The last group are: The periurethral complications, occasioned by infiltration of the surrounding tissues with the urine. It was to the last group that this patient's case belonged. The urine, in escaping into the tissues, does not produce invariably the same symptoms. It may cause simply a urinary tumor, or a urinary abscess with infiltration of urine; and the principal factor in determining which one of these will occur is the quantity and character of the urine effused into the tissues. Hunter was the first to say that the rupture of the walls was caused by ulceration behind the stricture. Civiale afterwards showed that account must be taken of the friability of the walls, and in our consideration two other elements must come in: one is the constant contraction of the bladder, and the other is the resistance given by the stricture itself, which ends in producing rupture of the urethra at the weakest point. It is a curious

fact, pointed out by Professor Guyon, no matter what form of stricture is present, it is at the level of the bulbous portion that the urethra usually gives way.

Dr. Ségond reminds us that strictures are now divided into four classes: 1st. Those caused by gonorrhœa, which are as a rule near in the bulbous region. 2d. The cicatricial strictures consecutive on chancre, and these are always near the meatus and the fossa navicularis, and more favorable for urethrotomy than dilatation. 3d. Are variable and are due to traumatism. 4th. This class consists of those in which the two factors of inflammation and traumatism are combined. The notion of gravity or benignity, according to the quantity of urine infiltrated, has not always been admitted as generally as it now is. The toxic power of urine was much studied by Ritter and Bouchard; but urine is not dangerous by simple contact, be it normal or alkaline. The quantity of the urine and its power of penetration are the only two elements of gravity.

What is to be done in presence of these complications? In the first place all abscesses must be opened. The incision should be carried along the middle line up to the urethra. All are agreed to this part of the treatment, but what is to follow is not so well established. Some surgeons maintain that as soon as the abscess is opened the stricture must be cut and a sound introduced. Others (Gosselin's school) advise us to wait five or six days before operating. As to the modern French school, who follow Professor Guyon, they never permit the idea of urethrotomy to enter their heads for at least two weeks after opening the abscess. This we believe to be the best practice whether the urinary abscess is acute or subacute. The reasons are that the acute form has pus collected in the tissues, which is in a kind of effervescence, and its virulence takes some time to subside. If you cut at once you will only provoke infection. If you wait you can clean out the wound and heal it and neutralize the septic elements, while the patient can urinate through the fistula thus created. There are cases in which the infiltration has

existed for months in which it might be advisable to operate at once, but even here it is wiser to wait. In short, then, the treatment is incision of the tumor with appropriate local applications to cure the abscess, and internal urethrotomy in two weeks afterwards.

The Induction of Premature Labor.

—Dr. Pinard, at the new "Clinique d'Accouchement," discussed in a recent lecture the several methods now adopted by modern obstetricians as the best means of provoking labor. First of all, he remarked, the usual remedies that have been used and are yet believed in by the public, and by some doctors, are all of them inefficacious. These are ruta, juniperus sabina, crocus, and ergota. It is currently believed that it is dangerous to give the sulphate of quinine to women who are pregnant, through they may apparently need it for malarial complications; yet as long ago as 1873, M. Tarnier had a number of experiments made by Doctor Pinard, in which quinine was given in massive doses to women during confinement, without causing the slightest contraction of the uterus. Since that time many facts have confirmed these important experiments of Professor Tarnier, and it may be stated that quinine may as a rule be given during pregnancy without the slightest danger. A large number of other means of inducing labor, such as electricity, frictions, massage, have been tried and found wanting. Kluge proposed introducing a sponge tent into the *os uteri*, but, after trying this method here, it has been abandoned. It was found that these sponges certainly would dilate, and at the same time excite the uterine fibers to action, but it was dangerous, as the death roll showed; septic infection was almost certain and in some cases the sponge even adhered to the uterine walls to such an extent that it became part of the mucous membrane and could not be detached. It was impossible to obtain perfect antisepsis, and the introduction of the tent was difficult in primiparas, and often useless in the multipara. Kiwisch then came with his ascending vaginal douches, but with these it was impossible to succeed without making the water come from a height of at least seven feet,

thus making a real *traumatic* action that was dangerous; if made with less force, it was bound to be useless, and it did not take long to abandon this method. Barnes then proposed to introduce his colporynteurs, but this is very difficult for many reasons for the general practitioner. In primipara, it will often be found impossible, though once the *os* is dilated it might be tried; and in some multiparous women. This reduces the choice to Krause's method or to Tarnier's. By the first, a simple rubber sound about the diameter of a pen holder, just stiff enough not to bend when it is pushed between the membranes and yet not so rigid as to tear the coverings, is first rendered aseptic by being steeped in a disinfectant strong enough to purify it, and yet not corrode it. Two fingers are introduced into the vagina until the *os* is reached, and the sound is then slipped in the groove formed by the fingers until it enters the orifice, and by rotating it can be slipped between the membranes for some twelve to fourteen centimetres, or some say until it is entirely within the *os*. In a large number of cases this will bring about labor, but in some it takes several days (two to three), and larger and larger sounds have to be introduced. It is not without danger that this is done. The sound incrusts itself and may even strip the muscular coat so that, in Italy, it has been accused of only bringing about labor by causing endometritis. Again, the membranes are easily broken by the sound; or it may meet the placenta and bring on hemorrhage; thus this method, while it is simple, may cause not only puerperal accidents and rupture of the membranes, but also separation of the placenta, and consequently dangerous hemorrhage, so that the preference is given here to Professor Tarnier's method. It consists of a rubber tube terminated by a dilatable rubber bag, and a metallic conductor. This conductor is a branch half round in shape, and turned on the end like a male sound. The little rubber sac when dilated with water is as large as an egg. To use it the rubber tube is fixed in the metallic carrier and injections of water are used to drive out any air that is in the tube and bag,

and to test the strength of the sac at the same time, notice must be taken of the quantity of water that is needed to dilate the sac. The introduction is made into the cavity of the neck as usual, except that Tarnier's instrument need not go far in, as it is a dilator as well as an exciting agent. Having placed it, the syringe quickly dilates the bag, with the proper quantity of water before determined. Dr. Pinard has used it in thirty-four cases in primipara without difficulty, and without any deaths, which cannot be said of Krause's sound. Another interesting point is in twenty accouchements, by this method, thirteen of the children were saved, though they all occurred in mothers with deformed pelvis.

Gonorrhœa.—How should acute gonorrhœa be treated according to modern ideas is a question that was answered recently by Dr. Mauriac, who has had so many years of experience in the Paris venereal hospitals. It is generally believed by the public that it is an easy thing to cut short such an attack, and many people also think that the quacks have certain advantages in this matter over the regular profession. It is owing to this that they have succeeded in making the treatment of this disease a sort of therapeutic Babel, which is mostly all confusion. A more uniform opinion ought to be established in regard to proper treatment of urethritis. The microbe theory with its gonococcus has done nothing as yet to clear up the subject. When patients come to consult us it is almost always too late to attempt to abort the attack, because it cannot be done after twelve hours, and should be tried within six hours of the commencement of the symptoms. To succeed even then a violent substitutive inflammation by means of caustics must be produced. This can be best done with a solution of nitrate of silver, $\frac{1}{25}$ to $\frac{1}{30}$ in strength, used with Langlebert's recurrent jet syringe, or any other means that will keep the liquid within the first three or four inches of the urethral canal. This may be done two or three times every forty-eight hours, and more than this will be useless. In the intervals a one to 200th solution of sulphate of zinc may be used, and the usual pre-

scription of cubebs, copaiba and opiates should be used for a week. The above, in brief, is the best treatment, if quickly applied, and it is useless to give strong astringent injections or balsamic drugs at this stage, although they succeed in the involution phase of the disease. A few words must be said of the experience that thousands of cases has given in the new antiseptic treatment of gonorrhœa. First of all, solutions of corrosive sublimate (one or two centigrams to 200 grammes of water) were used and the effect seemed to be good; in a few days the disease appeared to be cured, but as a rule it was only a *false cure*, and the same can be said with sorrow of all the antiseptics tried: permanganate of potassium, hydrate of chloral, boric acid, resorcine, and the latest, which is as follows:

R Quinina sulph.	1 gramme.
Aqua destill.	.75 "
Glycerini.	.25 "
Acid sulphuric q. s. to dissolve the quinine.	
Misce. Sig.—For a wash.	

All of these preparations *seem* to do good at first, but the disease will break out again. They only subdue some of its manifestations and do not kill the germ which mostly exerts itself in a later flow of sub-acute or muco-purulent discharge difficult to cure.

On the use of the Hippurates.—M. Poulet claims to have settled the long discussed question as to the nature of the acids in gastric juice. It is neither lactic nor hydrochloric, but it is hippuric acid. However, this acid does not exist exclusively in the stomach, except during the first part of digestion. After the first hour it is only found in feeble quantity, when it is replaced by another acid, which is also crystalizable, and that, Prof. Gautier thinks, is mesoxalic acid. When the stomach is entirely empty it seems, according to the same authority, that it secretes only tartaric acid, which is also the only acid found in the intestinal juices. A series of experiments were made on pigs, and lately on human beings, which confirms the above statements, and definitely settles the fact that hippuric acid is the acid principle of the gastric juice. From this to using hippurates is only a step which was quickly taken by M. Poulet; and

a new medication was at once inaugurated that has yielded very good results. Among the large number of diseases in which the hippurates may be used is all forms of cystitis, no matter of what origin. The first effect of the administration of hippurate of lime, in cases where the urine is alkaline, is to render it neutral, then gradually the desire to urinate frequently disappears, and all hemorrhage ceases. In chronic hepatitis, congestion of the liver, catarrhal jaundice, hypertrophic cirrhosis, and many other liver disorders, its effects are surprising. Many skin diseases are favorably influenced in their course by the hippurates, and as well as a number of maladies of the mucous membrane and dyspepsias of inflammatory origin. In diabetes it has been found an excellent remedy. The long list of rheumatic and gouty complaints find great benefit from its use, as it is admitted that there is always an increase of uric acid that is controlled by the hippurates. The following are the modes of preparation of some of the hippurates used by Dr. Poulet:

SYRUP OF HIPPURATE OF LIME.

Pure hippuric acid.....	100 grammes.
Lime water, q. s.	
Warm water.....	2 litres
Sugar.....	5 pounds
Essence lemon.....	15 grammes

Add the lime water and the acid to the water heated to 80°, trying from time to time, until complete alkaline reaction is obtained, then add sugar and the flavor, and melt on slow fire.

Syrup of hippurate of lithium is made in the same way, using the carbonate of lithium, 8 grammes; hippuric acid, 35 grammes; warm water, 1000 grammes, and sugar, 1200 grammes. They should be given a half hour before meals, mixed with a little water, in two or three tablespoonful doses per day.

The Late Washington Congress.—Considerable remark has been made here in regard to an ill-tempered article on the Congress, which was published in a local medical journal here, and which contained some severe criticisms, denying that the sessions had any scientific value. Dr. Landolt replied, that if the author had understood the language of the country he would have seen that the papers were of great value, and that if there were present

some of the "*kind of doctors America makes in two years*," they stood aside, and men of real merit presented the articles. Dr. Landolt did not deny that the banquet at Pension Hall was not properly conducted, but he said America is young yet, and has not the conveniences of entertaining that old Europe has. The reference in regard to the rapidity in which doctors are manufactured in America has brought out a series of articles by one of our young doctors, M. Authur Hugenschmidt, who studied in the United States, and even carried off the only prize given for a thesis at the Pennsylvania University last year. Dr. Hugenschmidt divides the American schools into three classes: 1st. Recognized medical schools of no great value. 2d. The medical schools of real serious merit; and, 3d. The homœopathic and women schools. He describes very well the state of the schools, and deplores the fact that Government does not take the matter in hand in regard to classical education, and not leave it to independent effort to do all; but that, however, it must not be thought that because it is true that doctors are made in some schools in America in two years, in place of the four, five and six of Europe, that there are not plenty of good practical medical schools which insist on longer time being spent within their walls, and upon a higher standard of attainments for graduation.

THOMAS LINN, M. D.

Paris, November 14th, 1887.

CHICAGO.

ONE of the most eminent surgeons of the city, Dr. Moses Gunn, died at his home, November 4th. The question now agitating the minds of physicians here is, Who is to be his successor? Dr. Charles T. Parkes has been and is now filling that chair.

Dr. John H. Hollister is testing the merits of "antifébrin" in the treatment of a large number of cases of typhoid fever at the Mercy Hospital. His results thus far have been very satisfactory, and he will shortly publish them.

The Women's Medical College has 90 students this year; Rush, about

400; College of Physicians and Surgeons, 175; Chicago Medical, 150:

Dr. N. Senn, in a recent lecture on "Septicæmia," * defined it to be a general disease, caused by the introduction into the circulation of the products of putrefaction, characterized by multiple foci of inflammation, by a continued form of fever and a peculiar complexus of nervous symptoms.

Dr. William E. Quine, in a lecture on "Typhoid Fever," summarized the exciting causes of the disease as follows:

1st. The exciting cause is a specific, poisonous, microscopical germ; and under no circumstances can typhoid fever originate from the influence of filth alone, unless that filth contains the specific germ.

2d. The germ is practically immortal. Typhoid dejecta may be imprisoned in an old cesspool or unused sewer pipe for half a century, and, then, after a lapse of this period, when this cesspool or unused sewer pipe is opened, the typhoid germ literally springs into existence with frightful malignancy, and a few whiffs from the accumulations in the cesspool will be sufficient to cause it. The germ does not die spontaneously; it can be killed.

3d. The germ multiplies in the human body, and an inconceivably minute quantity of this germ introduced into the human system makes the individual susceptible to the disease. An individual having a dozen movements of the bowels a day, each dejection contains germs enough to impart it to a hundred or thousand individuals; so there is clear proof that the germ multiplies in the human body.

4th. The specific germ of typhoid fever is eliminated by the bowels. A person may inhale the breath of a typhoid patient without danger of contracting the malady. He may lie on the same bed throughout the entire course of the disease without danger to himself, unless in some way the intestinal dejections or emanations have found their way into his own circulation. The poison is not contained in the urine, nor in the emanations from

the surface of the body, but simply in the fecal discharges.

5th. The fresh germ itself is innocuous—non-poisonous. Some investigators in Germany have engaged in the unpleasantness of drinking down fresh typhoid discharges, and have demonstrated with absolute certainty that these fresh discharges are innocuous.

6th. In order for the discharges to acquire activity or virulency they must be exposed to atmospheric air; hence old typhoid, putrid discharges undergo partial decomposition.

7th. The poison of typhoid fever is almost invariably swallowed in drinking from impregnated water supplies. It is sometimes swallowed in the food. In rare, exceptional cases, typhoid germs may be diffused through the atmosphere, and find their way into the human body through the lungs.

8th. A patient may have the disease two or three times; one attack does not protect him from subsequent attacks.

W.

ABSTRACTS AND GLEANINGS.

EFFECTS OF CERTAIN DRUGS AS VASO-CONSTRICTORS.—M. Trovati has made a series of experiments with the object of ascertaining the relative power of ergotine, hydrastin, and hamamelis as vaso-constrictors. When the blood contained 1-1000 of ergotine, the flow ceased in an hour. It diminished by a third in ten minutes, and by one-half in the same space of time, when it contained $2\frac{1}{2}$ and 5 parts per thousand respectively. The extract of hydrastis reduced it by two-thirds at $2\frac{1}{2}$ volumes per 1000. The extract of hamamelis, in the proportion of 1-1000, reduced the flow to one-half in ten minutes, and by two-thirds in the proportion of $2\frac{1}{2}$ per 1000. This test affords a good idea of the relative value of these drugs in the treatment of hæmorrhage.—*Med. Press and Circ.*

MASSAGE, REST AND POSITION IN SCIATICA.—Dr. Eccles, in *The Practitioner*, calls attention to the value of massage in the treatment of sciatica. His first case was one of sciatic neuritis, due to exposure. Poultrices, blisters, morphine, and the cautery were used with little benefit for six weeks.

* See lecture on Pyæmia, published in the PHILADELPHIA MEDICAL TIMES, Vol. XVII., p. 781.

Absolute rest in bed was enforced, the leg slung in a Salter's swing, and protected from cold. Massage was employed at first of the lightest description, but afterwards of more vigorous kinds.

Improvement was shown by the end of ten days; on the twentieth day passive motion was cautiously employed. The patient was discharged, cured, at the end of eight weeks.

WASHING THE STOMACHS OF INFANTS FOR DYSPEPSIA.—Washing out the stomach has been employed with success (Loey, in *Progrès Médical*) in nineteen infants of from one to sixteen months, seriously affected with dyspepsia. The author commences by emptying the stomach, and then he forces into it lukewarm water, slightly salted, until it comes out perfectly clear. The relief is often instantaneous; a very small number of washings daily or at intervals will effect a cure. This treatment is not by any means contra-indicated in cases of concomitant bronchitis.—*Exchange*.

[It is difficult to decide which is most reprehensible, the cruelty of a resort to such a measure as the above, in an infant one month old, or the paucity of therapeutical resources which fail to cure infantile dyspepsia without it.

It has been said, when a patient dies with typhoid fever, some one deserves hanging. Does not the spectacle of an infant having its stomach washed out, for dyspepsia, almost justify the expression of a similar sentiment?—Eds. P. M. T.]

THE ETIOLOGY OF CHLOROSIS.—Sir Andrew Clark, in *The Lancet*, discourses in pleasant vein the very important subject of chlorosis. To the query, Is, then, the problem of causation insoluble? he replies, "I think not. And I even venture to express the opinion that if we submit to careful examination the conditions of life which accompany the appearance of this anæmia, we shall be able to discover in them violations of physiological laws common to every case, wherever found, and sufficient through the results of these violations to explain the essential characters of the disease. In the period between the advent of

menstruation and the consummation of womanhood there arise physical, mental and moral changes which greatly influence the girl's habits of life and thought. She becomes self-conscious, and enters into new relations with those whom she meets. She thinks of her appearance and tightens her waist. Afraid of getting fat, she stints herself in food and eats of only dainty things. With her sense of modesty deepened, she is shy of being seen about the closet. Unprompted by nature, and perhaps disdainful of such affairs, she omits the daily solicitation of the bowels. And so at last it happens, through the compressed waist, the insufficient food, and the disregarded desire or the neglected trouble, that the bowels become either obstructed, confined, or inadequately relieved. In either case the feces accumulate, are retained, and not only undergo changes in themselves, but provoke changes in the mucous membrane with which they are in contact. As one of the results of those changes, both chemical and biological, there are produced new substances, ptomaines and leucomaines, which are injurious to the organism, and which, absorbed into the blood, originate in girls of a nervous type of organization those alterations of the constitution of the blood which constitute the true pathogeny of this anæmia of girls."

PILOCARPINE IN YELLOW FEVER.—Dr. E. Hebersmith, sanitary inspector, U. S. M. H. S., reports, in the *Medical Bulletin*, a series of yellow fever cases treated by hypodermic injections of pilocarpine muriate (gr. $\frac{1}{4}$). Prompt recovery and rapid convalescence ensued in every case.

The highest temperature noted in any of the six cases was 104.4° (F.).

In a few cases under our care in 1873-5, before the days of pilocarpus, we found that all recovered in whom the temperature did not reach 105°. This was without any special medication.

UTERINE SYMPTOMS DEPENDENT UPON RECTAL DISEASE.—Dr. Mathews (in *N. E. Medical Monthly*) reports the following interesting case: A lady, age 24,

married, was referred to me by a gynecologist. History: Had complained for months of backache, pains in the thighs, general lassitude, melancholia, bearing down sensation in both the vagina and rectum, pain over site of both ovaries, constipated habit, leucorrhœa, loss of flesh, irregular menstruation, difficulty of urination, a slight discharge of mucus from the bowel. Upon the examination of the womb, the gynecologist had not seen enough trouble to account for her symptoms. He treated her several months and advised her to consult me. Upon examining the rectum with speculum, I found it highly congested, very red and sensitive. A discharge of mucus covered the entire circumference for several inches up. The cause for this extensive congestion was not discernible. I was satisfied, however, that all the symptoms mentioned were purely reflex, and proceeded to treat the rectum. Hot water injections were ordered to be taken twice daily for several days, after which the entire portion of the congested gut was brushed over with a 40 per cent. solution of nitrate of silver. After three or four days I began to make application of liquid hydrastis and water, equal parts. This was changed for the pure liquid hydrastis. The redness and pain gradually disappeared, the discharge ceased, and all reflex trouble vanished. This is but a sample case of many that have come under my observation.

REVIEWS AND BOOK NOTICES.

A COMPLETE HAND-BOOK OF TREATMENT. By WILLIAM AITKEN, M. D., etc. EDITED WITH NOTES AND ADDITIONS, by A. D. ROCKWELL, M.D., etc. Pp. 444, 8vo. Published by E. B. Treat, New York.

This volume comprises the chapters from Aitken's practice, excised and arranged under the names of the diseases, alphabetically. In addition to his own views, the author has collated those of a large number of other writers. Of these, the majority are English; and, as might be expected, the medical officers of the Army and Navy are very

frequently quoted. This we consider the most valuable part of the work; as the high standing of these practitioners, and the care with which their cases are studied, recorded and compared, renders their work a collective investigation of a high order of merit. To them, for instance, we owe the complete demolition of Dr. George Johnson's pernicious doctrine of treating the early stages of cholera by the administration of castor oil (*vide* p. 59 *et seq.*). It is a curious instance of the tenacity with which some men will cling to ideas which they have themselves originated, even when their fallacy has been demonstrated, that Dr. Johnson still maintains his stand in favor of castor oil.

The arrangement of this work, under the headings of diseases, renders it infinitely superior, in convenience and practical utility as a work of reference, to the ordinary books on Therapeutics.

PHYSICIANS' VISITING LIST FOR 1888. (*Lindsay & Blakiston's.*) P. BLAKISTON'S SON & CO.

The modern visiting list has become a veritable pocket library. One after another, various schedules have been added, of such information as a physician may require in emergencies, or when absent from his office.

Of the one before us we can say that we know of no other which contains so much, and that is so carefully compiled and yet is not too bulky for the pocket.

SURGICAL DISORDERS OF THE URINARY ORGANS. By REGINALD HARRISON, F.R.C.S. Third edition. London: J. & A. Churchill, 1887. Pp. 583, 8vo.

The style is plain, concise and practical; that of a man who has no words to waste. The chapter on toxic urine is especially interesting. The author notes the fact that a wound of the floor of the urethra is more apt to be followed by fever than one situated elsewhere. He believes that urethral fever may often be avoided by preventing the urine coming in contact with the wound.

While advising gradual dilatation in the majority of strictures, the author favors the use of Holt's dilator as a stretcher in a small number. He does not mention Otis's urethrotome, though

he speaks approvingly of the urethrometer.

Nor is Newman's method of treating strictures by electrolysis mentioned; a singular fact, in view of the warm reception given Dr. Newman in England.

In the chapter on washing out the bladder, he recommends Keyes' apparatus, with a catheter opening near the end, "to avoid an unnecessary length of catheter being introduced into the bladder."

Dr. Harrison cannot have seen the soft rubber catheters with the eye at the end, such as are made by the Davidson Rubber Company, or he would scarcely have failed to mention them. Otherwise, his directions for irrigating the bladder are excellent; due caution being advised, but the danger not being exaggerated as it is in Belfield's book.

W. F. W.

MANUAL OF CLINICAL DIAGNOSIS. By Dr. OTTO SEIFERT (Privatdozent in Würzburg) and Dr. FRIEDREICH MÜLLER (Assistant to the Medical Clinic in Berlin). Third Edition. Translated by W. B. Canfield, A.M., M.D. (Berlin). With Sixty Illustrations. Pp. 173, 12mo. G. P. Putnam's Sons, 1887.

This is a plain, practical, little manual, taking up the subject from the standpoint of the student, and giving the elements of diagnosis in the clearest manner.

Chapter I. treats of the blood; its micrography in health and in disease.

Chapter II. gives in the briefest terms the diagnosis of the fevers, 11 in number. Temperature charts of each are given.

The succeeding chapters treat of the chest, the sputum, the larynx, the circulation, the pulse, the abdomen, the urine, transudations and exudations, parasites, the nervous system, concretions, metabolism and nutrition. To this is added a table of the weights of the human body, a dose table, and a copious index.

While such a work cannot be compared to the cyclopædic volume of Da Costa for the guidance of the practitioner, Drs. Seifert and Müller have chosen admirably the portion which is most suitable for the beginner. W. F. W.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

SHOULD PHYSICIANS BE PHARMACISTS?

Editors MEDICAL TIMES:

The writer has been much interested in reading a recent editorial in your journal upon the mutual relations of practical pharmacy and medicine. As pharmacist, and later as physician, the writer has had considerable experience on each side of the question, and has had ample opportunity to notice the practical workings of many of the points at issue. He begs therefore to submit a few additional suggestions upon the same subject, some of which are too frequently ignored or overlooked.

During latter years the somewhat strained relations which have arisen between the professions of medicine and pharmacy have been the origin of an almost endless series of complaints and recriminations from each party in the controversy, and their discussions occupy to-day a considerable space in the pages of our medical and pharmaceutical journals.

The physician accuses the pharmacist of practicing medicine by prescribing over the counter. He charges him with the unauthorized renewal of prescriptions, with substitutions in their ingredients and with adulterations of important drugs. He blames him for the sale of patent medicines, and for numerous other petty transgressions, and considers him as an impertinent invader of a territory which he, the physician, regards as particularly and exclusively his own.

On the other hand, the pharmacist regards the physician as meddling, and often even arbitrary and dictatorial, in his suggestions for the dispensing of remedies; he charges him with writing secret prescriptions, which can only be obtained at one particular

pharmacy, and whose formula the physician refuses to divulge; he accuses him of soliciting and extorting percentages on prescriptions; he finds fault because the doctor prescribes a host of semi-proprietary pills, emulsions, elixirs, wines, etc., instead of the official preparations of the pharmacopœia; he sneers at his lack of practical knowledge of the combinations and incompatibilities of remedies, while, at the same time, he is unduly sensitive upon the subject of their mutual professional relations, and smarts under the idea that the physician considers him, the pharmacist, as rather his subordinate and inferior.

Now, while both sides have certain just grounds for complaint, the most of the trouble arises from a mutual lack of comprehension of the working of certain unalterable and inevitable laws of demand and supply, by which both parties, in spite of themselves, are forced into inimical relations.

In the good old times the doctor mixed his own pills and boluses, compounded his own draughts, and then dispensed his not always palatable mixtures himself to his patients. With saddle-bags at his back, over many a mile of country, he was both doctor and druggist, and in many localities he yet, at this day, still reigns undisputed. From the days of good old Dr. Benjamin Waterhouse, who records in his ledger "A visit 2s.," or "Physick and a drench, 1s. 6d.," to the period of the modern pharmacy, with its polished counters, glittering show-cases and hissing soda-water fountain, is a long step, but still one which is but a gradual outgrowth of our social conditions. But the influence of competition—the life of trade, but often the death of profits—is responsible for the changed character of the business of the druggist at the present time. When pharmacy first stepped forth, not as the hand-maiden of medicine, but as one of its most important divisions, the occupation of the apothecary was solely that of a compounder and seller of drugs and medicines. No gaudy exhibitions of patent medicine signs, or glittering display of toilet goods and perfumery, then filled his shop windows; but instead they were modestly

arrayed, with a few specimens of familiar drugs, such as licorice-root, senna or Turkey rhubarb, with perhaps a jar of sponges or a few pieces of chemical apparatus. Those were the days when the patient and persevering toil of a Durand, a Proctor and a Parrish laid the foundations of our national pharmacopœia and dispensatory, and when the stern virtues and sterling integrity of Daniel B. Smith, Charles Marshall, Charles Ellis, Dilwyn Parrish, and many others, made the name of apothecary an honored and respected title in Philadelphia.

"Tempora mutantur et nos mutamur in illis." So, as time went on, the ranks of the pharmaceutical profession, in the more thickly settled parts of our country, filled up, finally to overflowing, and, as in other lines of trade, far beyond its legitimate need. The demand for drugs and medicines was not in itself sufficient to furnish a remunerative profit to all engaged in the business, and so to eke out an honest livelihood, the druggist commenced to sell fancy goods, soaps, toilet articles, cigars, confectionery, stationery, and almost anything else which was asked for by his customers and on which he could make a fair profit, and here is where the seed of discord was sown. While he compounded medicines and sold drugs he was free from the competition of all except his own professional brother, and as his occupation required the possession and exercise of considerable scientific knowledge, he could usually command a fair recompense for his material and for his professional skill. But when he entered the lists of trade, he entered into competition with men who needed no other knowledge than the wit to buy cheap and sell dear, and he became the same as they, a merchant. The pharmacist of to-day is essentially a merchant, with goods to sell. He must advertise his wares, he must employ the same methods to attract customers, he must cater to their needs, and counteract the wiles of his business opponents. Try to shift and deny as he may, his standard is a commercial standard, and not a professional one. Whether he consider himself as a merchant or as a professional man, it does not influence in the least his true situation, as long as the

public, who are his customers, and without whom he cannot maintain his business, regard him simply as a shop-keeper. He must sell his goods at the same prices as his outside competitors; he must keep postage stamps, directory, etc., for the public accommodation; and be he a Ph. D., Ph. G., or a simple licensed proprietor, as long as he keeps open store, the unthinking public will make no distinction. He must do the same as his neighbors; and should he attempt a revolt, and refuse to follow in the path, he will only meet with the same fate which Stephenson predicted for the cow when she tried to stop the locomotive: "vara bad for the coo." Formerly the pharmacist, by his position as an associate of the doctor, was an independent person; and, within moderate limits, could charge remunerative prices for his wares. Now, a variation of a few cents in the price is critically scrutinized, and but too often sends the customer to a competitor in business. Between the monopolization of his fancy goods trade by the large dry goods houses, the demoralization of his patent medicine business by the "cutters," and the gradual curtailing of his legitimate occupation by the inroads of homœopathy and the increase in the number of pharmacies, the professional pharmacist is to-day pushed closely to the wall, and often obliged to struggle for his life.

Now, neither can the physician prevent the pharmacist from counter-prescribing, nor can the pharmacist avoid it even if he so desires. It is a legitimate outgrowth of certain forms of the practice of medicine. For hundreds of years mankind has associated together the drug and the doctor. Where one is the other must be also; one cannot accomplish without the other; and though time and human agencies have divorced the healer of disease and the compounder of simples, into two distinct and separate classes, the public refuse to recognize the separation, and still first seek the place where the remedy for sickness is to be obtained. Sometimes they claim sufficient knowledge to select remedies, more frequently it is to ask the advice of the "doctor" at the drug store, as they term our friend the pharmacist; but, all the same, to the drug store they will go. Frequently it is from motives of econ-

omy, for the general public is not rich, and the physician's fee, in addition to the cost of medicine, is to them an item of expense which is to be avoided unless absolutely necessary. Now, unless the retail druggists as a body refuse to prescribe for the public, it is impossible for any single one to refuse to comply with their wishes without suffering a business loss. And it is improbable that the drug trade will ever attempt to do this. The trade is too lucrative and the impurity of the public too great. The man who refuses to prescribe will see his customers walk away to his next corner neighbor, and get there the advice and medicine they want; he will lose his business, while the medical profession, to whose interest he has sacrificed his own, will give him no additional patronage, and probably call him a fool for his pains. Should an accident happen on the public thoroughfare the sympathizing bystanders will rush with the sufferer, not to the nearest doctor's office, but to the nearest drug store. And should the druggist refuse his offices to the injured party, he will call down upon himself such a storm of public condemnation as will fairly make him shake in his shoes. So as long as he cannot help himself, even if he would, let the doctor stop berating him, and bestir himself to find a better way to remove or modify the offending practice.

In the matter of renewing prescriptions, the pharmacist is often too severely blamed. A large majority would be glad to refuse a renewal, could they feel sure of an unswerving support from the medical profession. But so long as the great majority of the doctors fail to give any authorization to the druggist for so doing by omitting to specify on the prescription "Do not renew," they cannot complain that their wish is disregarded. The situation is like that in the fable of the monkey and the chestnut. The doctor wants the fat roasted chestnut of a frequent fee; but he don't want to burn his fingers with the wrath of his patient and lose probably his future patronage. The latter generally regards the little piece of paper as an article of value, for which he has paid money, and consequently as entirely subject to his

control. So the druggist is expected to step in as the obliging pussy cat, refuse to renew the prescription, and burn his fingers by incurring the ill will of his customer. Let every physician forbid a renewal, and have it printed *conspicuously* on his prescription; and the outcry about renewals would soon cease.

In regard to substitution and adulteration, it must be admitted that in numerous cases the charge is a true one, and the evil is of growing dimensions. With the reduction in the margin of profits caused by the fierce business competition of the present day comes the temptation to adulterate or substitute inferior quality. No condemnation can be too severe for the man who thus trifles with human life; and if he cannot carry on his business honestly, he had better abandon it and seek some other occupation.

So much for the pharmacist. But as to the physician,—alas, poor man, what shall we say of him? Truly the lot of the general medical practitioner of the present is like that of the policeman: decidedly “not a happy one.” The foes of the druggist are principally from the outside; but the enemies of the doctor are of his own household. With the gynæcologist, neurologist, laryngologist, ophthalmologist, and all the other “ologists,” who monopolize his best patients and bid openly for their fees, the legion of free hospitals and dispensaries who kindly take care of that large portion of the dear public who will never pay for a thing as long as they can get it for nothing, and the druggist, who unselfishly relieves him of the venereal cases, the minor surgery, and the petty ailments, it is rather difficult to find out just what remains for the general practitioner. In fact, a recent medical writer suggests that “It would not be wise to state it definitely, lest some one should at once seize it as a new specialty,” and so leave him entirely bereft. He does not like to pitch into the specialist too severely, for perchance he hopes that some day he too may become a specialist himself. But the druggist looms up before his eyes as a rank offender; as an assistant who, growing big, has usurped the dignities and

embezzled the emoluments of his employer; and he “goes for him” with all his energy.

The physician cannot advertise himself to the public except in an indirect manner, and his opportunities for gaining wealth are thus more limited. Hence poverty or cupidity often tempt him to take advantage of his position, and to exact not only his legitimate fee, but also to take unjust toll on the price of his prescription. This is downright robbery. The patient suffers, not the pharmacist; for the latter will be sure to recoup himself by increasing his charges accordingly, and the patient is thus forced to pay a double fee. Let the medical profession deny it as they will, in some localities the collection of percentages is an open and settled fact, fully proved by figures and documents.

Again, the outcry is made that the physician is too apt to prescribe various remedies, more or less proprietary in character, put up by large manufacturing concerns and introduced by skilled advertising, and thus require the druggist to carry an endless variety of such articles in stock, many of which are seldom or only once called for, and thus remain a dead loss to the proprietor. But is the physician much to blame? True, he is sometimes imposed upon by the bland and suave canvasser, and the glowing printed endorsements of his own professional brethren in favor of some new remedy—*vide* stenocarpine. But when he sells remedies in convenient and compact shape, of appearance much more elegant than those he can procure from the corner druggist, and of at least equal efficacy, is it to be wondered that he should prefer X., Y. or Z.’s manufactures to the oftentimes imperfectly prepared remedies of the pharmacopœia.

And why should the druggist complain? As long as he keeps open store he must submit to the one unalterable law of traffic, namely, the needs of the customer are to be supplied. He will buy Lubin’s extracts for Miss Jones, and Alfred Wright’s for Miss Brown; he orders the great Electric Blood Purifier for young Mr. Smith, and the Mexican Mustang Liniment for old Mrs. Higgins; why should he not keep McK.

and R.'s pills for Dr. A. and P. D. & Co.'s fluid extracts for Dr. B. Although he makes a great outcry about being obliged to carry so much stock, he in reality does it to a very limited extent, and, outside of a few standard preparations, shifts the burden on his wholesale druggist and lets him carry the supply for him. Nearly all the large manufacturers have established depots for their goods in the principal cities, and the druggist very rarely lays in a stock outside of his actual present need, unless he is sure of a steady sale. And in regard to dead stock, the druggist is a fortunate man. Let him turn to the book-publisher with his volumes that "don't take," valueless except as so much wasted paper, to the dry goods and trimming merchant, or the tailor, whose stock is subject to the caprice and whim of fashion, and to the deterioration and loss in other avenues of business, and then let him deny, if he can, that his losses in this direction are extremely light. And let him remember also that if he don't keep what is called for, some one else will, and his customers will be sure to go where their needs receive best attention.

And here let a word be said for that much abused class, the modern manufacturers of pharmaceutical specialties. Notwithstanding that they have flooded the country with their "ines" and their "ias," that the mails groan with their circulars and pamphlets, that the physician's patience and his bell-wire are alike worn out by the importunities of their canvassers, and that their gratuitous samples serve to nourish a large and flourishing army of needy patients, yet it still remains that the medical and pharmaceutical professions owe to them a great debt. It is their industry and their capital which have developed the perfection of the coated-pill, and the compressed tablet, the pancreatic ferment and the scale pepsin, the smooth and palatable cod-liver oil emulsion, and the perfected extracts of malt. To their energy do we owe the modern methods of treating disease with predigested and concentrated foods—a plan which has been the means of prolonging many valuable lives. They have spread the fame of American pharmacy over the entire globe, and established

its supremacy against all competitors; therefore let them receive at least just recognition and honor for their labors.

Now, to "return to our muttons." What good does all this fulmination against the druggist produce to the physician? Granted, that the druggist is a rank offender in every respect; while the physician is emptying his "vials of wrath" at the meetings of his medical societies and in his special journals, the druggist is serenely prescribing over the counter at his own sweet will, and "raking in" the dollars of his patients. He cannot be restrained by legislative enactment, for the average legislator of the present day will scent in such a move a species of close corporation business which infringes upon the liberties of the dear people, and will promptly vote it down; while there is no doubt that so many cases of great hardship would arise if druggists were totally forbidden to prescribe, that any legal enactment would defeat itself and soon become a dead letter.

And in the contest between the physician and druggist the latter has all the advantages. No code of ethics binds him in professional restraint; he can advertise freely and publicly and draw out his customers with the advertisements; the physician must wait in his office until the public seeks for his aid. The druggist has the prescription of the physician to give him an insight into methods of treatment; and, last but not least, he is in constant and continual contact with the public, can easily gain its ear, and in a thousand different ways influence it for his own particular advantage.

What then is the physician to do? I answer let him meet the druggist on his own ground, and turn druggist himself. Let him go back to first principles, and as his sires did before him, let him be both druggist and doctor, and supply himself his remedies to his patients. But let him not imagine that because he has a medical degree, he is therefore qualified to conduct a pharmacy without any further training. While pharmacy is as much a branch of the healing science as is dentistry, gynecology, ophthalmology, or any other of its many subdivisions, it has made such progress within latter years as to raise it to almost a distinct science. The average

graduate of pharmacy of the present day is better taught than is the average recently fledged M. D. For at least four long years is the embryo pharmacist obliged to handle the mortar and pestle, and in daily contact and employment in the details of his profession, thoroughly trained, *practically* as well as theoretically, in its mysteries. On the other hand, to the shame of the medical profession be it said, that it is perfectly possible for a student to graduate from a reputable medical college, without having examined a patient, or attended a confinement. Lest this statement be deemed extravagant, the reader is referred to several letters recently published in the *N. Y. Medical Journal*, in which the fact is openly and repeatedly admitted.

So let the physician take up pharmacy either as an ante or a post-graduate course, as his means may admit, and then, after he has mastered its details, let him set down and open shop as a druggist. He will gain more patients and practice in one year than he would by waiting five years in his office.

And as for the druggist, let him in turn study medicine. If he is compelled by the exigencies of his situation to prescribe over the counter, *let him do it right*. Let him acquire the necessary knowledge of disease, and human structure and function, instead of by rule of thumb, blindly formulating his prescriptions. Instead of regarding the physician as his natural enemy, let him become his professional associate, and all the outcry about interference and counter prescribing and the like, will fade away, for each physician will control the giving out of his remedies. In fact, for the druggist, the latter course has already outlined itself. In the larger cities many of the fraternity are becoming matriculates at medical schools. In this city, a prominent Chestnut street pharmacist is now a student in the medical department of our University. And, among the writer's own circle of business acquaintances, he can number up some twenty or thirty who have either graduated as M. D., or are now taking courses in medicine.

So with the physician and pharmacist on the same ground the struggle for a livelihood can be conducted honorably

and upon an equal footing; and, should in future years competition still further diminish the margins of profit, the same condition of affairs will then probably exist in all divisions of human employment.

CHARLES L. MITCHELL, M. D.

1016 Cherry street.

THE NEW YORK LAW.

EDITORS MEDICAL TIMES:

Perhaps you are not aware that a diploma, to be registered here, must bear the endorsement of Prof. Flint, Dean of Bellevue Hospital Medical College; and, if the physician applying for such endorsement holds a foreign diploma,—*i. e.*, granted by a college outside of the State of New York,—he must pay twenty dollars for Dr. Flint's endorsement; while the New York graduate pays nothing. I can see nothing in the Act justifying such a charge; still it is made. This simply amounts to "class legislation" in favor of New York medical colleges.

* * * *

Will the editors of the PHILADELPHIA MEDICAL TIMES inform me what are the laws of New York State in reference to the practice of medicine? I am thinking of moving to New York State to practice, but do not know what is required of a physician.

L. G. S.

[The following is an abstract of the Act of June 23, 1887:

Sec. 1 prohibits all persons from practising physic or surgery in this State (New York), unless they have attained the age of twenty-one years, are already lawfully registered, or shall be licensed by the present act.

Sec. 2 defines those to be henceforth licensed to practice as follows:

First. Graduates of New York State medical colleges, operated under the rules which are enforced by all such schools.

Second. Those receiving their degree from the University of the State of New York.

Third. Graduates of American colleges outside of the State of New York and those holding licenses to practice from European governments must have their diplomas or licences endorsed by the faculty of an incorporated medical

college in the State, or by the regents of the University on the recommendation of a legally constituted board of medical examiners in New York. The indorser may require applicants to verify their statements under oath; and any indorsement made fraudulently, with gross carelessness or ignorance, is a misdemeanor, punishable by fine.

Sec. 3 provides for the registration of those qualified under the above sections at the office of the county clerk. An affidavit is required from the applicant, who must also exhibit his diploma or license and pay a fee of one dollar.

Sec. 4 directs that a registered physician who opens an office in another county shall exhibit his registration papers to the county clerk and register again; paying twenty-five cents.

Sec. 5 directs all persons licensed to practice, but not registered, under the Act of 1880, to comply with that Act before Oct. 1, 1887; and those neglecting to do so can only thereafter register under the provisions of the present Act. It also prohibits the registration of diplomas granted *in absentia*.

Sec. 6 prohibits any person practising in the State who shall have been convicted of a felony, and provides for the punishment of fraudulent registration or unlicensed practice.

Sec. 7 confers upon county medical societies the right to prosecute illegal practitioners.

Sec. 8 excepts from the provisions of this Act all army and navy medical officers and members of the United States marine hospital service while commissioned; those actually serving as residents to incorporated hospitals; dentists; makers of surgical instruments, etc., who fit such instruments; legal practitioners of other States who cross the line for consultations; physicians who live near the State line and cross it to visit patients, but do not open an office or have a designated place to meet patients in the State; and physicians registered in one county who visit patients in others.

Sec. 9 repeals former acts inconsistent with the present.

The form of endorsement is as follows:

"To all whom it may concern, greeting:
A. B., having on the — day of —,

18—, presented to the faculty of —, a diploma purporting to have been issued on the — day of —, to said A. B., conferring on — the degree of doctor of medicine, and it being made certain to us by inquiry and examination that the said —, at the date of said diploma, was a medical college or school, duly incorporated, in good standing, and authorized to confer the degree of doctor of medicine; and, also, that the said A. B. is the identical person upon whom the said diploma was conferred, and is also a person of good moral character, who has pursued a course of study equivalent to that required of a doctor of medicine by said faculty, and is sufficiently well versed in the knowledge of physics and surgery to qualify — to practice the same.

"Now, therefore, the said faculty have caused this endorsement and the seal of the said — to be placed upon said diploma.

[Seal.]

[Dean's signature.]"

This law is far more exacting than that of our own State. While it does not specifically empower the examining faculty to charge a fee, yet as it exacts an investigation which demands time, trouble and expense, and imposes a penalty for carelessness or ignorance, it seems only reasonable that such service should be paid for. We must say that we would scarcely be willing to personally incur the responsibility involved in making the above endorsement, for a fee of twenty dollars. In this State, where no penalty attaches, the fee usually charged is thirty dollars.

The legislation is clearly in favor of State Colleges; and the tendency is directly toward keeping students at their homeschools. Whether this course is strictly constitutional or not has been questioned; but it is at present the law. If one State after another adopt a similar law, the restrictions upon students and practitioners will become intolerable. The true solution of the difficulty appears to us to be the appointment of a State Board, which shall examine all applicants for license, charging a uniform fee.

We would be pleased to hear from our readers upon this subject.—W. F. W.]

MISCELLANY.

DESTRUCTION BY ARTIFICIALLY INDUCED DISEASE.—The proposal attributed to M. Pasteur, that colonists should call disease to their aid for the extermination of rabbits, has properly shocked the sensibilities of the world. It has already been compared to the poisoning of wells in a hostile country, a mode of warfare which would be considered disgraceful to any civilized nation. The suggestion that artificially induced disease should be utilized for the killing of the lower animals could hardly have originated in the mind of a medical man. We hope this will be clearly understood, and that no mistake on this point will allow medicine to be accused of a thought so foreign to her best teachings. If disease came to be regarded as a means of war against pests, it would, perhaps, not be long before the revolting proposal were entertained by hostile nations for the "removal" of their enemies. Civilization places some restrictions upon the actions of individuals, and certainly a proper sentiment recoils from the proposal to thus misuse medical knowledge.—*Lancet*.

The late Dr. Shelly, whom we knew well, informed us shortly before his death that he had never met with a case of vomiting from any cause whatsoever, which was not checked by ingluvin. Even in cancer of the stomach the good effects of this remedy were strikingly shown.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOV. 20, 1887, TO DEC. 3, 1887.

- LT.-COL. A. K. SMITH, SURGEON.—Assigned to duty as Attending Surgeon in New York City.
- LT.-COL. J. R. SMITH, SURGEON.—Ordered for duty as Medical Director, Department of Dakota.
- MAJOR S. M. HORTON, SURGEON.—Granted six months' leave of absence on surgeon's certificate of disability.
- CAPT. W. H. ARTHUR, ASSISTANT-SURGEON.—Granted two months' leave of absence, with permission to apply for two months' extension, to take effect on the arrival at Fort Niagara, N. Y., of Asst.-Surgeon Paul R. Brown.

FIRST-LIEUT. J. R. KEAN, ASSISTANT-SURGEON.—Granted two months' leave of absence, to take effect about Dec. 1st.

S. O. 269, A. G. O., Nov. 18, 1887.

So much of S. O. 235, A. G. O., Oct. 8, 1887, as relieves Lt.-Col. Chas. T. Alexander, Surgeon, from duty at St. Louis, Mo., and directs him to report for duty at Fort Meade, Dak., is amended so as to take effect Jan. 1, 1888.

S. O. 274, A. G. O., Nov. 25, 1887.

CAPT. PAUL R. BROWN, ASSISTANT-SURGEON.—Ordered to Fort Niagara, N. Y.

CAPT. JOHN O. SKINNER, ASSISTANT-SURGEON.—Ordered to Fort Ontario, N. Y.

CAPT. CHAS. RICHARD, ASSISTANT-SURGEON.—Ordered to post near Denver, Col.

CAPT. E. C. CARTER, ASSISTANT-SURGEON.—Ordered to Willett's Point, N. Y.

S. O. 270, A. G. O., Nov. 19, 1887.

CAPT. H. P. BIRMINGHAM, ASSISTANT-SURGEON.—The leave of absence granted by Orders No. 52, Fort Myer, Va., Nov. 24, is extended 23 days. S. O. 255, Div. Atlantic, Nov. 28, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE FOUR WEEKS ENDING DECEMBER 12, 1887.

WYMAN, WALTER, SURGEON.—Granted leave of absence for thirty days, Nov. 29, 1887.

WILLIAMS, L. L., ASSISTANT-SURGEON.—Granted leave of absence for twenty-one days, Nov. 18, 1887.

KINYOUN, J. J., ASSISTANT-SURGEON.—Leave of absence extended seven days, Nov. 29, 1887.

WOODWARD, R. M., ASSISTANT-SURGEON.—Granted leave of absence for seventeen days, Dec. 5, 1887.

GASSAWAY, J. M., SURGEON.—When relieved to proceed to Cairo, Illinois, and assume charge of the service, December 9, 1887.

IRWIN, FAIRFAX, SURGEON.—Promoted and appointed Surgeon from date of oath—December 10, 1877. December 8, 1887.* To proceed to Pittsburgh, Pa., Wheeling, W. Va., Gallipolis, Ohio, Evansville, Ind., Cairo, Ill., Little Rock, Ark., Shreveport, La., New Orleans, La., Rome, Ga., Chattanooga and Nashville, Tenn., as inspector, November 12, 1887.

GUITÉRAS, JOHN, PASSED ASSISTANT-SURGEON.—When relieved to proceed to Charleston, S. C., and assume charge of the service, December 12, 1887.

BANKS, C. E., PASSED ASSISTANT-SURGEON.—To proceed to Portland, Maine, and assume charge of the service, December 9, 1887.

CARMICHAEL, D. A., PASSED ASSISTANT-SURGEON.—When relieved to proceed to Washington, D. C., for temporary duty in the office of the Supervising Surgeon-General, December 9, 1887.

BEVAN, A. D., PASSED ASSISTANT-SURGEON.—Granted leave of absence for twenty days, December 7, 1887.

GLENNAN, A. H., PASSED ASSISTANT-SURGEON.—To proceed to Key West, Florida, and assume charge of the service, December 12, 1887.

* Omitted from previous report.

PHILADELPHIA MEDICAL TIMES.

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No. 524.

JANUARY 1, 1888.

VOL. XVIII

CLINICAL LECTURE

ON THE POST-OPERATION TREATMENT OF TUBERCULOUS PATIENTS.

BY PROF. VERNEUIL,

OF PARIS.

(Translated from advance sheets.)

AS a general rule, as soon as the mechanical part of their work is done, surgeons seem to think that their task is over; in doing this they err. In the first part of my work, "*Études sur la Tuberculose*," I spoke of the preparatory or pre-operation treatment of tuberculous patients who were to undergo surgical operations; and I then said that it was my intention to present some remarks on post-operation treatment of these patients at some future time. This is, after all, perhaps, more useful, if after the surgical success we wish a therapeutical one, which, if not always definitive, is at least for some time prolonged.

What I am about to say with regard to the value of special treatment of tuberculous patients, after a surgical operation has been performed, may not be very new; but, while all accept the principle, many fail to insist upon it with enough force, and few patients submit to it with sufficient perseverance, so that I feel called upon to in-

sist with both patients and physicians on the absolute necessity of appropriate treatment after surgical operations upon all such cases.

It will be well to commence with a definition of what post-operation treatment means, because it is evident that all surgeons do not understand it in the same way. For pure operators—and unhappily they are very numerous,—this treatment means simply the usual dressings. From the moment the sutures are taken out, the last drain extracted and the wound closed, all is over for them. The curtain rises with their taking the bistoury in hand and falls as soon as the last bandage is taken off. So that, as soon as this is finished, often in from six to ten days, or even much less, they declare the patient cured. Thus you will find many such instances where cases have been reported as cured, even after patients have submitted to such operations as a resection of the knee, or an amputation for osteo-arthritis.

It may be that the patient has been subjected, before the operation, to pharmaceutical treatment, more or less complete, consisting of cod-liver oil, the iodides, phosphate of lime or sulphur baths, but the day he is operated upon all this medication is dropped. Is it

taken up again after the local cure is obtained? No. In the majority of cases, in proportion as the immediate operative success is good, do they neglect to prescribe medicines which seem to have become useless. If the patient is in a hospital and he wishes it, his discharge paper is signed with the more triumph when the sojourn has been short and the local cure rapid; or else he is kept just time enough to permit of an apparatus being applied to the part. Sometimes he is sent to a convalescent hospital, or is advised to go to the country awhile, or to take rest a certain time, and told not to overeat, and this is all.

When things do not go so well, which is not an unusual occurrence, and the union by first intention partially fails, and the drains remain in fistulous tracts, or the processes of repair languish, are slow, or stop altogether; when the parts that are not healed, take on the characteristic aspect of tuberculous ulceration and the dyscrasic symptoms that have been suspended by the surgical act, or rather hidden temporarily by the traumatism, re-appear in full force on the scene, they then may think of using a local and general anti-tubercular medication.

Very often all fails now, as it did before the operation, because there is present a double morbid state, composed of a local lesion and a general malady. The man upon whom the operation was performed to-day was tuberculous yesterday and will be so to-morrow. The point of operation now more than before is his place of least resistance, and will most likely so continue. What do operators do now? Why, they take up their instruments and commence again. If the operation has been a radical one, and the knife has passed the suspected zone as, for instance, when an amputation in continuity has been performed after the failure of a resection, it is possible that they may obtain a local operative success, and even cause a halt in the constitutional malady; but here, again, if we think only of the present and not of the future, we shall sing victory prematurely, for if the right post-operation treatment is not instituted, in a few weeks, or a few months, or a few years,

the patient comes back to you with some graver lesion, more and more profound, or with visceral lesions, in the first rank of which must be placed pulmonary phthisis.

I appeal to all surgeons of good faith to state if it is not as I say, in the majority of cases, at least in the great cities and among patients who are not well off. I ask them in how many in a hundred of their patients do they follow up and insist upon a consecutive treatment, and for how long this treatment is prescribed? I ask also, given a case of local tuberculosis which has been operated upon with success, but without any general therapeutic after-treatment, in what proportion they count *definite* cures in such cases, existing say for eight or ten years? Perhaps some have been more successful than myself, but I can state that I have seen almost all of the patients, upon whom I have performed operations at the hospital, die in the first or second periods of ten years afterwards, if they did not follow a post-operation treatment. On the other hand, I have seen permanent cures brought about in patients whom I have amputated, castrated, or resected for tubercular affections, and in whom a post-operation treatment was strictly followed.

I attach a great value to this form of medication after operations in such cases, and I will briefly say what it is. Like the pre-operation treatment it is essentially designed to combat the general malady. First of all, after any of these operations, care must be taken to apply good antiseptic dressings. On the very day of operation, unless there are particular contra-indications, the anti-diathetic treatment is commenced. It comprises both (1st.) medicinal agents, (2d.) hygienic measures. I pass rapidly over the first, which consists in the usual preparations of iodine, arsenic, sulphur, with cod-liver oil, phosphate of lime and so on; and as the rule any of these that seem to have an affect before the operations must be continued, only being temporarily suspended for the operation to take place. If iodoform is used on the wound, this medicine has the property sometimes of being rapidly absorbed, and passes

into the circulating current from there, and acts directly on the economy.

But I wish to speak more at length on the *hygienic* measures. The most important of these consists in placing the patient in a pure medium or centre, one that is not at all contaminated or contaminated with difficulty; or, what would be better, in a curative centre. As regards tuberculosis, I understand by a pure medium one that does not contain any bacilli tuberculosis, and a curative medium must be one that has the power to destroy the aforesaid germs. When we operate in our private practice upon a tuberculous patient, who lives in the best part of the city, in a large, well-aired house, we think we are in the best possible conditions; and so indeed we are as far as the operation is concerned, as the wound will heal rapidly and there is no danger of septicæmia, etc.; but no matter how comfortable and clean this centre may be, it had no action on the tubercular diathesis that existed before the operation, so that it cannot be curative. It may be that it is also impure, as the persistence and resistance of tubercular germs is known to be great, and the very furniture, clothes, even the dust of the place may be infected by the patient who has lived there; so that the emigration of even the rich patient to another and purer locality seems indicated at once. It would seem that it was hardly worth while to move a tuberculous patient, who lived in the country, and is operated upon there; but, still, even if he is living in the woods or open fields, there are two distinct mediums as regards his case: one the room or house in which he has lived and most likely contaminated, and the other the rest of the town; and a removal even to a neighboring locality might be advisable. It is particularly for the inhabitant of the large cities and the poor hospital patient that a change of medium is needed, and it is just these cases that are difficult to provide for. The poor devil who leaves his garret to go to the hospital and after operation returns to his miserable home, only exchanges one unhealthy surrounding for one that is perhaps worse, and so he is never in a pure medium, and naturally the curative

centre is impossible for this class, so that really nothing is left but medication, that is rarely prescribed and as rarely taken when given. If with this we think of the poor protection against the weather, and bad if not poisonous food, the results that are so deplorable in surgical operations on this class are readily understood. Are there any means of remedying this situation? Yes, I think there are, but the conditions are such that I fear that it will be long before they are adopted.

Every tuberculous patient of the town, who has to submit to an operation of any importance, should be transported, if not at once, at least soon afterwards, to a *pure centre*, and remain there a long time, if he does not stay for good.

Every tuberculous patient in the country ought to be operated upon in a house that is not infected by disease germs; that is to say, certainly not his own, unless it has been purified first. All such patients, who have been operated upon in cities, and in whom the cure of the surgical traumatism is delayed or fails, or even when the operation itself is successful, but the general malady continues, should emigrate to a pure centre or a curative one; and if such a patient has the happiness to see his malady arrested there, he should never return to the city, or, at least, remain away for months. In the same way a patient treated in the country, and whose wound does not heal rapidly, must remove to a better therapeutic, or curative, medium or centre. A countryman who has local tuberculosis, and is cured by operation, should remain where he has pure air, and never settle in a town. Again, a countryman who comes to live in a city and contracts the disease, and from which he is relieved by an operation, should return at once to his village, and not come back to the city where he was infected. If pure centres are useful in assuring durable surgical cures, then curative or therapeutic ones are more powerful still for good, not only by inhalation of pure air, but also by air charged with medicated principles and by their penetration into the respiratory tract, as well as the digestive and cutaneous ones. Such places are seaside resorts,

pine forests, sulphur springs, arsenical waters, salt springs, etc., etc. A few months at the seaside, a few weeks in the Pyrenees or in the Auvergne mountains and springs, can confirm surgical cures and restore health, but that the effects of such centres should last, the stay must be continued for a long time. Nothing is so imprudent as to permit the return of such patients to cities as soon as a suspension of the trouble is obtained. If such methods cannot be used, a great deal can be done by using merely pure centres, with the continued use of such medication as is reputed useful in such cases. All that I say of the benefits of such pure and curative stations can be seen and proved at the seaside hospital, established for tuberculous cases at Berck-sur-Mer, and in other thermal stations, and we hope to see many more such establishments created and rendered accessible to the poor in the future.

To sum up the means of success in post-operation treatment, we would say that first an effort should be made to render the blood parasiticide, and to modify as much as possible the humors of the body. If possible, a preparatory sojourn should also be had in a pure or a curative centre. Do the operation also, if possible, in a pure centre, or at least have the living centre purified. After operation, take up again the medication without delay, just as if it had not been stopped; in smaller doses if you will, but to be continued for a long time.

For certain cases, forms and degrees of surgical tuberculosis, the persistent residence or return to the impure centre where the disease was formed, will end in death, more or less certain even if delayed, but in every case inevitable. Emigration in these cases is a prime necessity. I could relate a large number of cases to prove what I have stated above. Experience has only confirmed my conviction of the truth of the position I took forty years ago, when I wrote an article on the return of local scrofula after amputation. I am convinced that operative interference *alone* is not sufficient to radically cure what we know now to be local tuberculosis.

ORIGINAL COMMUNICATIONS.

HAY-FEVER, WITH SOME NOTES ON PALLIATIVE TREATMENT.

BY WILLIAM M. CAPP, M.D.,
Of Philadelphia.

HAY-FEVER, popularly so-called, is essentially a neurosis, the distinctive characteristic of which is periodicity. At certain seasons there is a special liability to an exacerbation in those so unfortunate as to be subject to it. At any time, however, this may be induced if the patient be exposed to the exciting cause, which is not in all cases the same. Doubtless it is determined largely by personal idiosyncrasy; also for some individuals there are many exciting causes.

Many symptoms usually attributed to the disease do not, properly speaking, belong to it; though they may follow upon it and are commonly found to accompany it. It is they which cause most of the distress of the patient and from which he applies for relief.

There exists a hyper-sensitiveness of portions of the nervous system, more particularly the vagus, and of the complicated and many ramifying innervations in the Schneiderian membrane. There follows naturally hyperæsthesia of the mucous membrane and external skin, and a morbid exaltation of reflex action; also a slight elevation of temperature, a disturbance of the peripheral circulation and a general lowering of the tone of health. All these combined produce a subjective condition particularly favoring the induction of that acute state well described to the popular understanding when it is said one has taken cold.

When this almost inevitable catastrophe has occurred, all the usual, marked catarrhal symptoms come at a bound. A few sneezes of uncontrollable violence, followed at varied intervals by others equally irrepressible and all paroxysmal in nature, and the usual discomforts of the hay-fever sufferer are upon him. The cold which he caught will in a general way account for the main objective symptoms, but their development has been more speedy, widespread and severe owing to the

present periodic susceptibility of the system.

If the urgent desire to sneeze, which is a part of the primary condition and which comes in paroxysms, is yielded to and not suppressed, many of the violent inflammatory symptoms will develop in a similar manner. But if it is controlled, and if taking cold is avoided, it will be possible to preserve a large degree of comfort. In fact, in the intervals of the paroxysms he may be free from all discomfort, the intervals may be lengthened and the force of the paroxysms will lessen.

The most potent factor in causing the extreme violence of the symptoms is the racking, paroxysmal sneezing. To it is to be attributed the inflamed condition of the membranes of the nose, eyes, throat and bronchia, which in turn gives rise to pain, suffusion, hoarseness, feverishness and general systemic discomfort. If sneezing can be avoided this condition need not occur. When it occurs it reproduces and makes operative again its own cause, so that there is a complete circle of successive cause and effect which tells upon the whole organism and may continue to that point of exhaustion where nature reacts and the recuperative forces again exert themselves.

In treatment, primarily, of course prophylactic measures should be used. They should be instituted long before the usual time of the attack. If the cause can be determined and the patient put beyond its influence, naturally we would not expect a recurrence. If the attack is missed for a sufficient number of successively recurring periods, we might expect the suppression of the dyscrasia. We may fairly believe all this possible. Indeed, some claim to have accomplished it. Failing at this point, however, either from want of opportunity or other reason, efforts must be directed towards preventing the violent outbursts referred to. If they can be avoided the most distressing troubles do not follow, and the disturbances of the disease proper may be successfully controlled and kept in check.

The secondary aim then, in treatment, is to prevent the paroxysmal outbursts which culminate in violent sneezing.

This accomplished, the primary condition will have a tendency to subside. Experience demonstrates that appropriate hygiene and medication will keep the disease in such check that it ceases to be a terror to its victim.

The patient should lead an outdoor life; be comfortably clothed with wool next the skin; use gentle exercise, but avoid free perspiration. Sunshine is beneficial if the weather is not too hot. Draughts of air are to be avoided, also sitting out of doors unless in sheltered situations, that is, if he usually leads an indoor life. He wants pure air, especially free from dust; and if it be found that plant emanations affect him, let him seek the seashore, or take a voyage by water to avoid them. Some of the islands quite out in the sea give immunity. He should maintain calmness of mind, avoiding all excitements and refrain, for the time, from intellectual efforts which require confinement and close application. On getting into bed, the chill from cold sheets must be avoided. Let him have wool sheets or wear light wool sleeping clothes over the whole person. Before rising in the morning the system is well fortified by sipping a cup of hot coffee; it enables him to rise and dress quickly without catching cold. A cold plunge-bath is grateful and braces the nerves, if it can be taken quickly and a thorough reactionary glow secured afterwards; but it should be taken in the after part of the day and followed by a meal, rather than in the early morning.

Diet is of the utmost importance, more particularly as regards the quantity of food taken and the frequency of the times of taking it. Of course, easily digested food must be preferred, as indigestion and skin affections are readily provoked. All bulky meals are to be avoided. Light meals supplemented by light lunches will secure the greatest comfort. Iced water, unless sipped in moderation, gives only trouble, and had better, with all other icy draughts, for the time, be ignored. During this whole period there is a special tendency towards digestive disturbances; and accumulations of gases or of undigested food in stomach and bowels, by causing irregular reflex

actions, may provoke paroxysms as certainly as street dust or pollen. Any other irritants in the alimentary tract would act similarly.

The medication should meet the indications as they arise more in the spirit of temporary relief than the adoption of a course of medicine extending through the whole period of attack. A little watchfulness will enable one to forestall an attack by detecting the direction from which it comes and warding it off. A laxative saline may occasionally be needed, and if so, it should be given a little in advance rather than a moment too late. If there is a sensible depression of the nervous system probably nothing will give more satisfactory results than strychnine; while quinine and phosphoric acid may at times be advantageously combined. A fairly large dose, repeated only when necessary, will answer better than a smaller dose in the usual manner continued through the whole period. By this method the system responds better to the medicine and does not so readily become tolerant of it.

Locally, ethyl iodide by inhalation proves to have satisfactory anti-spasmodic action. It should not be used until the peculiar uneasiness is felt in the nose and roof of the mouth, which announces a desire to sneeze. It is most effectively applied by inhaling through the nose and mouth alternately from a half-full, thin glass vial, which may be enclosed in the hand, the heat from which facilitates the vaporization of the liquid. If used at once, it will often abort an attack of sneezing.

Considering the extreme hyperæsthesia of the mucous membrane lining the air passages, it certainly seems unphilosophical to make local use of anything which implies violence in its application. All snuffs, douches, unguents and liquids syringed into the nostrils are intolerable in many cases; even a coarse spray impinging upon the surface irritates, gives pain and is quite likely to induce a spasm and sneezing. The most delicate manipulation is called for, more imperatively in some cases than in others. Probably the most effective application at command is cocaine hydrochlorate, in a two, four

or five per cent. solution. In cases of extreme sensitiveness, it is delicately applied by inserting into the nostril a film of absorbent cotton, moistened with the solution. It may be allowed to remain, and gentle pressure of the patient's finger on the outside of the nose will better secure the wetting of sensitive surfaces within. This relates more especially to the middle and anterior sensitive areas described in the books. Usually one thorough application produces a sufficient degree of anæsthesia of the parts to give relief from the impending paroxysm, and produces for several hours an insensitiveness to ordinary provoking causes from without.

In general, probably the simplest way to apply the cocaine is from a pipette while the patient is recumbent, or holds the head well back. The liquid can be made to trickle slowly and gently over the sensitive surface in an unirritating manner. A fine spray may sometimes be made to answer, also, but is liable to be carried far beyond the sensitive surfaces, and result unpleasantly. If the solution is too strong, or if too much is used, it may produce violent headache. Care must be taken not to let it penetrate into the larynx or upon the epiglottis, as the local anæsthesia produced may allow the saliva or other swallowed material to find its way into the trachea and produce great distress. But cocaine should be applied only to meet indications, and never in a routine manner.

It is recognized that the treatment suggested will require more attention and watchfulness than can ordinarily be given by the physician to his patient; but intelligent patients may be taught how to treat themselves in the intervals of the physician's visit. In the case most in the mind of the writer, however, where physician and patient happened to be united in the same individual, this difficulty did not exist, and the gratifying results seemed to justify the preparation of this paper.

Accompanying the tingling or itching sensation in the soft and hard palate, which is the precursor of a paroxysm of sneezing, is an apparent anæmia of the mucous membrane of that locality. Doubtless the same condition

exists in the mucous membrane of the nose under similar circumstances, where there is also a sense of chilliness. In a few moments sneezing comes on, after which these membranes will be found to have lost their paleness and to have a congested appearance. The sneezing, however, may be aborted by anæsthetic measures referred to above, or by stimulating applications such as inhalations of vapor of ammonia, applications of heat in vapor of water or otherwise. After the latter means have been used with success the membranes present a normal appearance. It seems plain that this anæmia is but the first stage of an inflammation which, if not aborted, will go on under the aggravation of unchecked spasms of sneezing, or a cold, through all the successive stages, until the graver symptoms usually seen in the worst sufferers from hay-fever are reached.

Recently, a distinguished London authority has again called attention to varix in the fauces and pharynx as an unrecognized cause of certain neuroses, and there can be but little doubt that this condition will be met with in many cases of the disease under discussion, probably often accompanied by a weak heart, attendant, at this period, upon the general depressed condition of the nervous system.

It is usually observed that the first decided frost gives immediate relief from all distinctively hay-fever symptoms. Their entire disappearance over night from such cause is one of the arguments used to favor their theory by those who hold that plant emanations are the cause of the trouble. It must not be overlooked, however, that there must first be recognized to exist a systemic condition capable of being affected by pollen; and, also, that any other direct irritation, at this period, of the sensitive areas, will produce all the effects attributed to pollen.

In closing this article the reader may be reminded that neither the cause nor any direct treatment for the cure of hay-fever has been under discussion. The paper may be considered as indicating that the disease under review is passive in nature rather than active; that its tendency to paroxysmal outbursts is to be met by abortive

treatment; that this is palliative of the disease, and that the continued suppression and prevention of the paroxysms may eventually eradicate the disorder. In other words, it is to be looked upon as a *dyscrasia*, i. e. a bad habit of body, which has in it very strikingly the element of rhythmic periodicity—an element inherent in so many physiological and pathological phenomena. Avoiding the exercise of the habit will probably abolish it, as in the case of any other bad habit.

The palliative treatment suggested will prevent the graver discomforts which usually afflict the patient. The acutely inflammatory and catarrhal states may be avoided and thus a tolerably comfortable residence be rendered possible even in what are usually accounted unfavorable localities. Probably the strength of the argument lies in the fact that by the course indicated the ordinary train of catarrhal symptoms which follow one another in the well known order, are avoided, and that in the intervals of the paroxysms no symptoms whatever are apparent, and that the effusions, which come only at the time of the paroxysms, are confined to the nose, and never get beyond the first and watery stage; also the intervals between the paroxysms are lengthened and the force of the paroxysm itself is lessened.

A CASE OF LARYNGEAL STENOSIS WITH AUDIBLE ARTICULATION.

BY CARL SEILER, M.D.

Read before the Phila. German Med. Society, Oct., 1887.

IT would seem at first glance impossible for a patient with stenosis of the larynx, through which no air can pass, and whose vocal cords cannot vibrate, to articulate audibly even in a whisper; for, according to the definition of grammarians, articulate speech is composed of vowel sounds produced by the vibration of the vocal cords, and of consonants, which are noises produced by the more or less sudden interruption of the flow of breath through the upper air passages. A case, therefore, in which audible articulation, without any breath flowing

through the upper air passages on account of laryngeal stenosis, was observed, must necessarily be of interest, not only on account of its rarity, but also on account of the compensating possibilities of the organs. The case, a history of which I will relate, is however also of interest to the surgeon, because of its pathology and the happy result of the operation undertaken for the relief of the patient.

Case.—In the fall of 1881, Mrs. K. brought her little boy Daniel, aged three years, to me for examination on account of hoarseness which had existed, she told me, for more than a year. The child was well nourished and in good health. As the cause of the hoarseness the mother assigned severe cold when the child was about two years old. After some difficulty, I obtained a view of the larynx, and found a small papilloma apparently springing from the left vocal cord. As there was no difficulty in respiration and the tumor appeared pedunculated, also taking into account the extreme youth of the patient, I did not think a removal of the growth *per os* advisable at the time, and told the mother to wait until the child was older, or until dyspnoea set in, making an operation imperative.

I heard nothing more of the case until the summer of 1885, when Mrs. K. requested me to call and see her little boy. At the same time she told me that, about a year before, difficulty of breathing had set in, and at the solicitation of friends she had consulted a specialist, who had performed tracheotomy. Unfortunately abscesses had formed around the tracheal wound, and ulceration of the opening had supervened, which still persisted. No attempt had been made to remove the growth from the larynx, and the child breathed entirely through the tracheal tube. This state of things had existed so long that the parents had become dissatisfied with the medical attendant and had discharged him.

When I saw the child again I found him very much emaciated, nervous, and in great dread of being hurt, so that an examination of his throat was very difficult. I succeeded, however, and discovered the larynx to be completely filled with papillomatous growths; which astonished me the more as the boy articulated in a peculiar way, but in a voice

sufficiently loud and distinct to be heard plainly across a good sized room. A closure of the tracheal tube at once brought on dyspnoea; on the other hand, the absence of moisture on the laryngeal mirror above, showed that no air passed through the larynx. On removal of the tracheal tube, I found the canal filled with granulations and the skin around the opening to be ulcerated. This condition of the canal (which, on account of thickness of the tissue over the trachea, was very long) did not allow of the introduction of a small mirror into the trachea, so that I could not get a view of the subglottic cavity.

By substituting a rubber tube of a slightly different bend, for the silver one, and by careful treatment of the ulcerations and granulations, a healthy cicatrix was soon formed; but even then I could not get a mirror into the trachea. At the same time I proceeded to remove the papilloma, *per os*, and succeeded in the course of three months, apparently, in freeing the upper laryngeal cavity from the growth. During this time, I had every opportunity to study the method of articulation adopted by the interesting little patient; and I found that he imitated the vowel sounds by attuning the oral cavity to the proper pitch for the vowel to be sounded, and by making a scraping noise with the side of the tongue against the lower teeth, forcing the air contained in the pharyngeal cavity past the obstruction. The self-sounding consonants, such as B, P, S, T, etc., he produced in a similar manner, viz: by forcing the air past the obstructions by a muscular effort of the tongue and the pharyngeal constrictors. The mute consonants, such as M, N, H, etc., he was, of course, not able to produce; but they were readily supplied by the ear of the listener, after a little practice. So proficient had he become in the use of his singular mode of articulation, that even strangers found no difficulty in understanding him; and his mother, to test his capability, at my suggestion, frequently sent him on errands to the stores and other places, which errands he executed invariably to her satisfaction. In literature I have not been able to find a similar case recorded, but remember having seen one in 1871, in the clinic of Prof.

Stoerk, in Vienna, in which a complete adhesion of the free edges of the vocal cords throughout their entire length caused the stenosis. In this case, also, there was audible articulation without air passing through the upper air passages. One of Prof. Stoerk's assistants, in order to verify the possibility of audible articulation without air, practiced this method and succeeded in doing so. To prove that no air passed through his larynx, he would inhale the smoke from a cigarette, none of which escaped while he was speaking.

After the upper laryngeal cavity had been cleared of papillomatous growth, a fenestrated trachea tube was substituted for the complete one worn by the patient heretofore, with the expectation that the air would pass through the larynx, but this expectation was not realized and only very little air passed—not sufficient for either respiration or articulation. This being the case, I finally decided to resort to an external operation, which was undertaken in the fall of 1886, with the assistance of my friend, Dr. Reeves, who administered the ether, and of Drs. Millick and Gibb.

The old tracheal wound being low down in the neck, I concluded that it would be best to open the trachea just above, and explore from thence upward. Unfortunately the child surreptitiously had eaten a variety of indigestible viands shortly before the time set for the operation, so that when the trachea had been bared, and before I could cut into it, he commenced to vomit, and showed such exhaustion that it was deemed imprudent to continue the operation. A dry dressing was therefore placed on the wound in the neck, and left there until the next day, when he was again placed under ether.

Without further difficulty an incision was made into the trachea about three-fourths of an inch above the insertion of the tube, and carried upward through the cricoid cartilage, leaving the crico-thyroid membrane intact. A separation of the edges of the wound disclosed the fact that the subglottic cavity was completely filled with a papillomatous growth, which I proceeded to remove with the forceps from below.

In order to prevent injury to the vocal cords in the efforts at removal, I passed the index finger of the left hand through the mouth into the larynx, and was in this way enabled to direct the forceps by the sense of touch. After every vestige of tumor had been removed, I found on investigation an annular stricture of the trachea just above the tube, which had reduced the lumen of the trachea to about one-eighth of an inch, but allowed the passage of a dilator without much difficulty. This stricture had no doubt been produced by the ulceration after the first tracheotomy. Its walls being soft and yielding, I concluded that a permanent dilatation would cause absorption of the thickening, and I therefore removed the tracheal tube from the lower orifice and introduced it into the fresh wound through the stricture, in which position it acted both in the capacity of a permanent dilator and to give passage to the air.

The child recovered from the operation without any mishap, and was out of bed in less than a week. The tube, having a large fenestra, allowed the air to pass upward; and on the third day after the operation free respiration through the larynx was established. I allowed the tube to remain for four months, although its external opening was kept closed with a cork during most of that time. After the expiration of this period, the tube was removed and the external wound allowed to heal, which it did in a short time. The little patient gradually began to use his vocal cords and produce sounds, so that now he speaks as well as other children and has completely forgotten his make-shift method of articulation. I saw him only a few days ago, and found his larynx entirely free from papillomatous growths.

1346 SPRUCE ST., PHILA.

UNIVERSITY HOSPITAL.—Dr. Goodell exhibited a patient in whom an ovarian cyst had been diagnosed; but, upon operation, ascites was found. In this case there was dulness anteriorly over the abdomen, instead of the usual tympanitic note; because the intestines were prevented from floating by adhesions.

THE VALUE OF NITROGLYCERINE IN TINNITUS AURIUM.

(Presented at the Meeting of the Otological Section in the International Medical Congress at Washington, Sept. 9th, 1887.)

BY LOUIS J. LAUTENBACH, M. D., PH. D.,

Assistant-Surgeon to the Pennsylvania Eye and Ear Infirmary, Philadelphia.

AFTER the usual experience in ear-work and a gradual accumulation of unimproving cases of tinnitus aurium, I began to study the general effects of nitroglycerine, and to use it in these cases. It had been used by others in tinnitus, both with and without success; but I knew of no way of recognizing the cases in which it would be most likely to prove serviceable. In order to learn when to use it, I began to give it in private practice to all cases of tinnitus in which I had found no improvement under other treatment, and in public practice in all cases of tinnitus. In some cases there was improvement; in others there was none.

In the patients where improvement had occurred there was found to be present a similarity of conditions, and I soon satisfied myself that there was a class of patients in which the nitroglycerine treatment was valuable. I found it most serviceable in patients having the tinnitus aurium, without much impairment of hearing, and where but little change had occurred in the naso-pharynx, and where it was found on examination that some abnormal condition of the heart existed, either functional or organic.

In many of these cases, more or less structural changes from catarrhal inflammation of the middle ear were present; among them change in the shape and translucency of the drum-head, with accompanying change in appearance or position of the triangular light spot.

Follicular pharyngitis was present in some of the cases. The tinnitus was generally constant, or nearly so. It was not, as a rule, more marked when the patient was in a recumbent position; occasionally there was some remission in that position. The thermometric and barometric conditions of the atmosphere influenced the tinnitus. Damp weather, with low barometer,

usually increased it. Dull, heavy headache more or less persistent, and most frequently located in the parietal regions, though sometimes located in the frontal region, was of frequent occurrence. In these cases I used the nitroglycerine in pill form, and in doses of one-hundredth of a grain. At first but one pill a day was given, generally in the morning. The amount given, later, was increased, enough of the pills being given to diminish the tinnitus, or to cause headache. As many as six of these pills were given in a day, though, usually, two were found to produce a beneficial effect. Improvement sometimes was manifest within a day or two after beginning the use of the remedy. In cases of long standing, the remedy was sometimes continued for a period varying from one to three months before a satisfactory result was obtained. Cases in which there was recurrence of the tinnitus seemed to yield more readily on resuming the treatment than when the remedy was first administered. The conclusion which I reached, after a fair trial of this remedy, was that it is of value in certain cases of tinnitus aurium—especially in those where cardiac lesion exists, functional or organic, and where there is little or no loss of hearing.

N. W. Cor. 6th & Green Sts., Philadelphia.

CLINICAL NOTES.

HERPES ZOSTER.—For a case of herpes zoster, Prof. Shoemaker prescribed:

R Tincture ferri chloridi...gtt. xv
Potassii chloratis.....gr. v M.
Sig.—Three times a day.

AN EXPEDIENT FOR PARAPHIMOSIS.—In cases of paraphimosis, where it is very difficult to return the prepuce, Dr. McConnell freely uses the "therapeutic touch" with a very fine bistoury, making punctures in the swollen part, and, by thus letting out the exudation, he rarely has much trouble to draw the prepuce over the glans.

MYALGIA.—Prof. Waugh recommends this prescription in acute myalgia:

R Extracti belladonnæ.....gr. ½
Ammonii chloridi.....gr. xx M.
Sig.—Give as a dose three times a day.

SYCOSIS MENTI.—Prof. Shoemaker prescribed for a case of sycosis: Washing with *sapo. viridis* twice a week the following ointment:

R Oleati plumbi.....3 j
Olei cadini.....gtt. xv
Lanolini.....3 j M.

And internally, Donovan's solution, gtt. x, three times a day.

GONORRHEAL RHEUMATISM.—For the exuadation of lymph in cases of gonorrhoeal rheumatism, Dr. McConnell uses the wet compress; and he prepares it in this manner: Wet two large sponges, put them under a letter-press, flatten, and let them get dry. Then apply one on each side of the affected part, and fasten with a roller bandage. Now cut a hole in the bandage and pour in hot water.

VOMITING OF PREGNANCY.—Prof. Stewart has found oxalate of cerium, gr. ij, before meals, to be the best general prescription for the sickness of pregnancy. Where the sickness is alarming, he often gets good results from bromide of soda, gr. xxx, every two or three hours. The latter preparation he also considers of great use in sea-sickness.

CHRONIC GASTRITIS.—For a case of chronic gastric catarrh, Prof. Waugh gave the following treatment: One hour before each meal take ten grains of carbonate of potassium in a cup of hot water; and just before each meal:

R Zinci oxidi.....gr. ij
Argenti oxidi.....gr. $\frac{1}{4}$ M.

CHROMIC ACID FOR EPISTAXIS.—In cases of persistent and dangerous epistaxis try chromic acid. First put enough in to give the water a slight pinkish tinge, and if this is not sufficient increase the strength of the solution, and employ it as a wash till the hemorrhage is stopped. Prof. Waugh lately recalled two cases of diphtheritic epistaxis cured by this means which would otherwise have died, having resisted all treatment until he tried chromic acid.

FÆCAL OBSTRUCTION.—To break up large fæcal masses and secure an evacuation of the bowels, Prof. Woodbury advises magnesii sulphas, gr. xx, every

two hours, with irrigation of the bowels by warm soap suds, through a rectal tube. If there is defective innervation, he also employs Faradism. A digital examination should not be neglected.

VOMITING OF PREGNANCY.—In one of his lectures, Prof. Woodbury said that often the best way to treat the persistent sickness of pregnancy was to make some application to the *os uteri*, and inform the husband that it was terribly caustic in its action, and the dressings must on no account be disturbed during the continuation of the treatment.

CARE OF THE HAIR.—To keep the scalp in good condition, it should be washed with an unirritating soap once or twice a week, and afterwards rubbed with a coarse towel. To prevent loss of hair, applications of oil of ergot are good, with or without oil of eucalyptus; or of preparations containing naphthol or tannate of quinine; or the fluid extract of soap bark. PROF. SHOEMAKER.

FROM THE DERMATOLOGICAL CLINIC.—For chronic eczema on inner part of thigh, Prof. Shoemaker ordered strychnine. If it produce no impression, then he would give hoang-nan; also use soap for its stimulating and cleansing effect.

Locally he ordered:

R Ext. erythroxyli fld.....f 3 j
Bismuth subnit.....3 ij
Boro-glyceridi (50 per cent.) f 3 ij
Aque calcis.....f 3 ij M.

Sig.—Use on affected part.

Prof. Shoemaker considers arsenic in combination with mercury and iodide of potassium a valuable and happy addition for the treatment of tertiary syphilis; and for the eruptions of this stage he applied locally on a patient at his clinic:

R Calomel.....gr. x
Camphor.....ḡ j
Cerat. plumbi subacet.....3 ij
Ung. zinci oxidi.....3 ss M.

Sig.—Use locally.

For a girl, twelve years of age, suffering with lupus, he ordered:

R Syr. phosphatum comp.....3 iss
Syr. malt.....3 ij M.

Sig.—Teaspoonful three times daily.

R Oleati hydrargyri.....3 ij
Olei cadini.....3 ss
Ung. zinci ox.....3 j M.

Sig.—Locally.

INTERMITTENT FEVER.—Dr. Vogler (German Hospital) recommends for the constipation in intermittent fever, a powder consisting of calomel, gr. iv, ipecac, gr. j, bicarbonate of soda, gr. xxiv, aromatic powder, gr. xij. Divide into powders, xii; give them as necessary. After the sweating stage is over, he gives a pill of quinine, gr. iss, capsicum, carbonate of iron, and nuxvomica, aa gr. ss, oil of cloves, q. s. Give one pill 4 or 5 times a day.

For the enlargement of the spleen, he uses the biniodide of mercury ointment, and rubs the abdomen with this every other day, for about 10 or 12 days, especially over the spleen.

DR. WHITE related a case in which there was an abrasion on the penis a day after connection, which was thought to be benignant, because the initial lesion of syphilis never appears so soon, but in which the characteristic lesion appeared on the abrasion at the end of three weeks.

AT THE UNIVERSITY HOSPITAL.—Dr. Goodell exhibited a large dermoid cyst, containing bones, teeth, hair, etc., which was removed from a patient while operating for ovarian cyst. The latter, which was strangulated by twisting of its pedicle, and was already becoming discolored, would, in his opinion, have burst and set up fatal peritonitis in a few days had not the operation been promptly performed.

In whitlow, Dr. Agnew claims that the finger should be opened down to the bone without waiting for supuration to occur, as then it is often too late to save the tendons. He exhibited a case in which this was not done, and the flexor tendons were so injured that amputation was necessary to render the hand useful.

AT THE PHILADELPHIA HOSPITAL.—In a case in which amputation of the cervix was thought inadvisable because of the extent of the disease, Dr. Parish curetted a large, fungoid, carcinomatous growth from the cervix uteri. He recommended and used vinegar to control the hemorrhage, which was not as profuse as usual, and packed the vagina with iodoform gauze.

DR. OSLER, at the Philadelphia Hospital, December 14th, 1887, laid particular stress on the fact that under ordinary circumstances the pulmonary second sound is of less intensity than the aortic, but when forced inspiration is made and the breath held, in a state of health, or in cases of mitral stenosis or regurgitation, the pulmonary sound preponderates.

Dr. Osler claims that for one case of heart murmur, due to aortic stenosis, we have twenty of murmurs from other causes, the most frequent being atheroma, either of the valves or the ascending aorta. He advises that in all doubtful cases the murmur be forgotten entirely; and that the other heart symptoms, with the general condition of the patient, be taken as the guide to prognosis.

In cases of retention of urine from stricture, when the symptoms are not too alarming, Dr. White says that he does perineal section much less frequently than formerly, but, instead, introduces a filiform bougie, which usually relaxes the stricture sufficiently for the urine to flow. He then uses gradual dilatation or internal urethrotomy, according to the circumstances of the patient.

DR. GOODELL claims that ovarian cysts are rarely found in the full-blooded negro, but that the nearer a mulatto approaches the white the more liable she is to this affection; on the other hand, fibroid tumors are very common in the black race.

AT THE UNIVERSITY HOSPITAL.—Dr. Agnew presented a case in which he had trephined the skull for epileptic attacks of thirteen years' standing, with three to four seizures a week. Although the operation was done over a year ago, the man has had but two seizures since, one brought on by prolonged exposure to the sun, the other by acting as mediator in a fight.

FOR STRAPPING ECZEMATOUS ULCERS.—Dr. Porter always dips the adhesive strips in warm water, claiming that by so doing the plaster is rendered less irritating and adapts itself more neatly to the parts. He prefers this method to dry heat in all ulcers, and wherever adhesive plaster is used.

VARICOCELE.—Dr. Porter believes that attention to the bowels, wearing a suspensory, and cold to the testicles, will relieve most cases of varicocele, but thinks that on account of the frequent morbid mental condition of the patient, it is often better to operate. In operating he prefers ligation over a lead button.

IDIOCY.—Dr. Pepper showed a girl, aged 10, who, since birth, had been unable to walk, speak, or control muscular action. The only encouraging symptoms were partial ability to hear and comprehend questions, and ability to articulate "egg" and "mamma," the latter word having been learned in the past year. He gave a very unfavorable prognosis, but recommended electricity, massage, and systematic education, as long as there was hope of improvement.

BILIARY CALCULI.—In a case of high fever during an attack of biliary calculi, Dr. Pepper succeeded in reducing the temperature from $105\frac{2}{5}^{\circ}$ to $103\frac{2}{5}^{\circ}$, and keeping it there, by one five grain dose of antipyrine. The patient had a history of repeated attacks for one year past, and for four days before death did not secrete a drop of urine. On post mortem he found fatty degeneration of the liver and kidneys, three calculi in the gall bladder, and one at the duodenal orifice of the common bile duct, with some bile behind it.

PEDDLING AND PRESCRIBING GLASSES.—Drs. Fox and Gould have recently made a very timely and sensible plea for a law restraining peddlers, jewelers and opticians from prescribing glasses. They cite many cases of injury, often permanent, to eyes from errors due to ignorance, and claim that such "opticians" should be as much under legal restraint as druggists.

AT THE PHILADELPHIA HOSPITAL recently, Dr. C. K. Mills illustrated a variety of body movements, combined with deep breathing, for the treatment of paralysis, chorea, atony of the muscles, and melancholia. One case of a man, with incessant spasmodic movements of the head, arms, and legs, evidenced considerable improvement from large doses of conium.

UNIVERSITY HOSPITAL.—Dr. Pepper exhibited a case of lumbago of 18 years standing, complicated some years ago by an injury to the foot, with severe wrenching of the affected leg. He recommended tonic treatment for a time, followed by hypodermics of atropia or cocaine, the actual cautery along the nerve, the slowly interrupted galvanic current, massage, and as the sciatica is probably of rheumatic origin, the salicylates of soda and cinchonidia.

TREATMENT OF APOPLEXY WITH HEMIPLEGIA.—Dr. Vogler, at the German Hospital, showed a case of hemiplegia, due to apoplexy, with loss of motion on the left side. The arm was more involved than the leg. The patient had not felt well for some weeks before the attack came on, complaining of headache and vomiting. Two weeks ago, while reading, the patient fell on the floor unconscious, and was admitted to the hospital two days after the attack. He had loss of power of speech as well as of motion. The patient has recovered speech and partial motion; sensation has returned almost entirely. He was put upon iodide of potassium and the fluid extract of hyoseyamus, with wet cups along the spine.

If the growth of the finger nails is retarded in hemiplegia, and if later they start to grow again, it is a symptom of returning nutrition. In chronic forms of hemiplegia, setons are sometimes used with advantage. Strychnine, massage and electricity are also of great value. Stiffness of the muscles is sometimes a symptom of impending apoplexy.

OSTEOTOMY FOR GENU-VALGUS.—Dr. Deaver performed, on a boy, osteotomy by the subcutaneous method for genu-valgus. He made an incision about half an inch above the tubercle, and inserted the osteotome before withdrawing the knife, and cut the femur at right angles from below upwards, so as not to injure the artery.

He never uses an Esmarch or any other bandage for osteotomy or excision of joints, because hæmorrhage is slight, and it lessens engorgement of the capillaries after the operation, and thereby the danger of secondary hæmorrhage.

Dr. Deaver showed this case of osteotomy of the femur by the subcutaneous method at his next clinic. Patient is doing well; temperature was never higher than 99.7° on the second day after operation; since then normal.

Dr. Deaver also operated on a woman with a lipoma on the posterior side of the axilla; he made the incision from above downwards, and obliquely outwards, so as not to injure the axillary artery.

He claims that there is no need for a drainage tube, where the deep fascia is not injured, because absorption into the deeper tissue cannot take place.

To secure union by first intention, he advocates ligation of all the bleeding vessels with catgut, to prevent secondary hæmorrhage and diffusion in the cellular tissue.

CORRECTION.—The prescription on page 171, of the TIMES of Dec. 15th, for corneal inflammation, should read:

Iodoformi.....gr. iij
Lanolini.....3j M.

On the same page, under the head of Ophthalmia Neonatorum, the applications should read: Boric acid, gr. x. to f3j, and nitrate of silver, gr. ½ to f3j.

TRANSLATIONS.

MASSAGE DURING PARTURITION.—In parturition, we obtain from massage four results. We excite the contractions of the uterus, rectify vicious positions, favor delivery by the process known as "expression," and arrest hemorrhages.—*Dujardin-Beaumetz.*

CORROSIVE SUBLIMATE IN THE TREATMENT OF GRANULAR CONJUNCTIVITIS.—Passing over the yet unsettled question whether granular conjunctivitis is to be attributed to parasitic origin or ascribed to some inflammatory causes, Cipriani has laid down some important conclusions, drawn from the very good results obtained clinically from the use of corrosive sublimate as a remedy in the treatment. These conclusions may be classified as follows:

1. Under the action of a solution of corrosive sublimate ($\frac{1}{2000}$) in pulverizations, in acute as well as in chronic conjunctivitis, the conjunctival secretion diminishes rapidly, and disappears at the same time that the hyperæmia

decreases, more slowly in the chronic form, but always more rapidly than under the influences of a solution of nitrate of silver.

2. Simple phlyctenulæ disappear more rapidly by the use of sublimate than by that of calomel.

3. In trachoma complicated by any acute or chronic inflammation, not only a diminution or even disappearance of the hyperæmia, but also a decrease in the quantity of follicular granulations have been noticed.

4. In all cases of acute conjunctivitis, when nitrate of silver is contraindicated, instead of cold and abstraction of blood, we should employ weak solutions of sublimate in pulverizations or lotions, by means of a syringe. Such a treatment can produce a quick recovery, when the nitrate of silver cannot be employed.

5. In chronic conjunctivitis as well as in *conjunctivitis blennorrhagica* in its second stage, the mixed treatment of nitrate of silver and corrosive sublimate gives a far better result than the nitrate of silver alone.

6. The use of a weak solution of corrosive sublimate, in the form of pulverization, gives very good results as a prophylactic against the so-called *conjunctivitis blennorrhagica neonatorum*.

The said lotions act differently according to the state or condition of the disease, and according to the stage of its evolution.

If these lotions cannot be borne by the patient in such a case, a weaker solution of sublimate will do very well, provided the lotion be immediately followed by application of cold water to the eye. A few drops of collarium of nitrate of silver should be injected into the eye, instead of repeating the lotion in the evening, and the same thing should be done in case there are any complications of the cornea.—*Giornale Medico di Roma.*

PROPAGATION OF TYPHOID FEVER BY FOMITES.—Gelan (*Deutsche Militäer-ärzt. Zeitschrift*, 1887, Heft 6) contributes the following to the *ætiology of typhoid fever*: During the years from 1873 to 1884, 146 men of the Second Hanover Field Artillery, 26th regiment average strength 353 men,

suffered from typhoid fever, besides twenty-one men of abortive forms of typhoid; therefore, on an average, 16 per annum, or 45.30 per cent. Chemical analysis of the drinking water proved that it was not deleterious. The continuance of the disease was then referred to endemic influences, or foul exhalations from the soil; but though changes and repairs were made to remedy this, in 1882 four deaths occurred. The second battery, among whom the largest proportion of sickness and death happened, was now removed to a part of the barracks hitherto enjoying complete immunity, but this removal simply proved that the typhoid followed this battery, new cases constantly recurring.

The suspicion now arose that the clothing might be the carrier of the infection. This suspicion was increased by the fact that the patients had used the bedding and clothing of previous patients, which had been disinfected simply by the use of sulphur. A closer examination revealed the fact that the shirts and drawers, hardly without exception, were soiled with dried fecal matter, and particularly the inner lining of the cavalry pants. It may be presumed that through brushing, heating, etc., the germs were thus set free, and acted as the infection.

A thorough cleansing and disinfection of all clothing, by means of chlorine gas and the application of a high degree of heat, was followed by a complete cessation of the typhoid endemic. Only three cases of infection occurred shortly thereafter, which are ascribed to the cleansing of the wash of patients.—*Centralblatt fuer Bacteriologie und Parasitenkunde.*

THE THERAPEUTIC USE OF RAW MEAT.—DUJARDIN-BEAUMETZ AND YVON.—In regard to nutritious quality, goat-flesh and horse-flesh occupy the first rank. The degree of digestibility of meat depends upon its state of cohesiveness; the flesh of the younger is more digestible than that of the old animal. The digestibility of those kinds of meat is the greater which can be eaten in the raw, or pulverized state, or as conserve.

It is best to eat only mutton in the

raw state, because beef may easily contain the cysticercus of tænia. It may be administered in various ways, and is prepared by scraping with a knife or finely mincing it. Among the culinary preparations are specially to be noted: beaten egg with raw meat; artichoke purée or spinage with the same; soup consisting of 25–50 parts of flesh pulp and tapioca.

To the pharmaceutical preparations belong especially the *conserves*, the *emulsions* and the *marmalades*.

Meat conserve, after *Adrian*:

Filet du bœuf.....	60.00*
Sea-salt.....	1.00
Frozen fruit.....	500.00

Emulsion, after *Yvon*:

Raw meat	50.00
Sweet almonds.....	15.00
Bitter almonds.....	1.00
Sugar.....	16.00

Mix them up in a mortar, and add the necessary amount of water to make an emulsion.

Meat marmalade, after *Lailler*:

Raw meat in fine pulp.....	100.00
Pulverized sugar.....	40.00
Wine (fine quality).....	20.00
Tincture of cinnamon.....	3.00

The most important indications for these preparations occur in patients suffering from consumption, chronic diarrhoea and the like.

Pulverized meat, when dried at a temperature below 100° C., may easily be reduced to a powder. In order to know that this powder is good, it is necessary that, under the microscope, the muscular fibres may still be seen. If, however, many bacteria are present it must be regarded as harmful. Pulverized meat is best administered mixed with other nutrient materials. *Riforma Medica*, No. 247, 1887.—*Internat. Klin. Rundschau.*

DEBOUE recommends tannic acid in the treatment of inflammations, acute and chronic, serous and mucous, and in some ovarian cysts. The dose is from ten grains to two or three drachms a day. The action of the drug is quickly manifested. Constipation is relieved, the appetite is restored, and the perspiration and urine increased. The drug must be of good quality; the yellowish or greenish yellow being preferred, but not the reddish.

* Parts by weight.

BRIGHT'S DISEASE AFTER SCARLET FEVER.—T. Hase, in a contribution on this subject (Jahrb. f. Kinderheilkd., 26 Bd., S. 341) remarks as follows:—

Among 875 scarlatina patients, 138 (17.70 per cent.) were seized with nephritis. Therapeutically the results were brilliant. The treatment consisted of milk diet, warm baths (29°—30° R.), followed by warm packs and the administration of black coffee. The following prescription was ordered:

R Sodii bicarb
Sodii sulphat
Tinct. convall. maj. āāā 4.00. .f3 j
Aque destillat.90.00. .f3 iij
M. S.—6 to eight teaspoonfuls daily.

With pyrexia, antipyrin; with continuing diminution of the urinary secretion, calomel (gr. j to gr. iij per dose); with eclampsia, enemata of chloral hydrate, or chloroform narcosis, and along with this, as stimulants, musk and ether. Should the urine become very bloody, ergot with nitric acid or ol. martis (liquor ferri sesquichlor.) is ordered. Astringents, and notably tannin or sodium tannate concludes the treatment.—*Centralblt f. Kindhkd.*

ÆTIOLOGY AND CLINICAL BACTERIOLOGY OF WHOOPING COUGH.—M. Affanassieff prepared, with all the precautions for microscopic investigation, a small portion of the expectoration of a whooping cough patient, which showed (magnified 700–1000 times) large numbers of short rod bacteria of 0.06 to 2.2 mm. in length; in part singly, partly by twos, or in longer chains. On account of their totally different appearance from all bacteria thus far known, he made plate cultures with them, planting a particle of the sputum upon jelly of beef-peptone and beef-peptone-agar-agar, of each two plates. After two to three days there appeared upon all the plates numerous, almost similar, colonies of bacteria; round or oval light-brown colonies with smooth borders, which did not liquefy the jelly; round, with slightly toothed borders, quite black colonies; large pale colored ones, consisting of short thick rods; and round colonies with jagged border and brown centre, constituting one round, large coccus. In the first named colonies were to be seen, through the micro-

scope, pure cultures of the above-described bacterium, which the investigator, after a careful comparison with all bacteria thus far known, was constrained to recognize as a bacterium *sui generis*, and inasmuch as cultures derived from the expectoration of still other whooping cough patients furnished exactly the same bacterioscopic result, these pure cultures of the rod bacterium were now transplanted upon various culture soils. This rod bacterium grows very rapidly in d'Arsonval's thermostat at the ordinary temperature of the room (37° to 38° C.). It does not at all liquefy the culture soil, and flourishes the most rapidly and numerously upon the potato and upon beef-peptone-agar. Upon the second day already is here to be seen a distinct pellicle, at first of a transparent gray, later on becoming perfectly white. Similar is the pellicle upon sterilized blood-serum, only that here it does not spread out far, but remains stationary at a certain stage of its growth. Upon the potato the pellicle is yellowish and shiny, but later on brown and quite dense. Upon jelly the microbe grows slowly, the pellicle here, too, is thinner, gray, with a rough surface and irregular borders, which by the eighth and ninth day are strongly toothed.

With pure cultures of these rod bacteria, the investigator has made eighteen experimental inoculations upon animals. A solution of this culture upon agar-agar at least eight days old, and 1 to 2 c. c. of common salt was made and injected into the windpipe or lungs of dogs and rabbits—of course, under antiseptic precautions. The animals all contracted a disease similar to whooping cough, often complicated with broncho-pneumonia; several died, and section showed that the mucous membranes of the bronchi, the trachea and even of the nose, are the chief seat of the injected bacteria. This same bacterium was found in the lungs and respiratory mucous membranes of children who died of whooping cough, so that the author considers this bacterium to be the true cause of whooping cough, and names it the *bacillus tussis convulsivæ*.

As to therapy the author has nothing new to say.—*Central. für Kindhkd.*

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, JAN. 1, 1888.

EDITORIAL.

INSANITY FOLLOWING THE
USE OF ANÆSTHETICS IN
OPERATIONS.

DR. GEORGE H. SAVAGE, in a paper read before the British Medical Association (*Brit. Med. Journ.*), treats of a topic which, so far as we are aware, is new to American readers.

He lays down the following propositions:

"Any cause which will give rise to delirium may set up a more chronic form of mental disorder quite apart from any febrile disturbance. (a) The most common form of mental disorder which comes on in such cases is of the type of acute delirious mania; (b) though such mental disorder is generally of a temporary character, it may pass into chronic weak-mindedness, or into (c) progressive dementia which cannot be distinguished from general paralysis of the insane."

In the first group are found instances of insanity following alcoholic excesses, the eruptive fevers, or pneumonia. In one case delirium due to the toxic action of belladonna apparently started the insanity. Another was the case of a man whose heredity was markedly neurotic, and who was easily "upset" by alcohol. While recovering from acute mania, chloroform was administered in order that an injured hand could be examined. While under the influence of the anæsthetic his old maniacal ideas recurred, but disappeared with the anæsthesia.

In another case, a lady suffering with an acquired neurosis, it is recorded that, two years after recovering from

her first attack of acute mania, she was put under the influence of chloroform in order to see if contractions of the limbs could be relieved. It was decided that nothing could be done; and a second attack of mania ensued; which the author attributes to the chloroform, but which appears to us to be more probably due to the excitement and the subsequent disappointment in learning that she could not be benefited by treatment.

The third case was that of an elderly patient who was operated upon, under ether, for rectal cancer. When the patient became conscious his mind was found to be affected. After a considerable time he recovered suddenly, some time after returning home from the asylum.

In this case, also, we fail to see sufficient reason for attributing the mental aberration to the anæsthetic. The sudden recovery from dementia, following a more active form of madness, some weeks after returning home from the asylum, is not at all surprising. We fear that many cases of acute mania end in dementia, which could be transmuted into a cure by intelligent care.

The fourth case was that of a married woman, a chronic drinker, who had taken gas at her dentist's. She did not recover from the anæsthetic, but became delirious, and after three weeks settled down into dementia; in this state she still remains, silly and fat.

A question impossible to settle is in what proportion the habit of alcoholic indulgence (so fatal to women), and the use of nitrous oxide, contributed to the causation of the maniacal attack. Such an ending is by no means unlikely to a secret drinker, even without the intervention of the anæsthetic. In any event, all that can be attributed to the latter is the part of the spark in kindling the fire in a train which has

been already prepared. In somewhat similar cases we have seen a restoration of reason follow the energetic use of strychnine, galvanism and massage. Just as the anæsthetic excites mania in one whose indulgence has prepared her for it, so a vigorous treatment may dissipate the dementia which succeeds on the subsidence of the acute disorder.

In conclusion, the author cites cases of insanity following ovariectomy or parturition, and of general paralysis following the use of anæsthetics.

Altogether, none of the instances cited afford sufficient proof that the anæsthetics, *per se*, had anything to do with the occurrence of insanity afterwards; while the vast number of cases in which the administration of these agents is not followed by anything of the sort, goes to show that insanity is but an accidental sequence of anæsthesia. But the tendency on the part of officers of insane asylums to look upon their institutions as places of detention rather than of cure, and to be satisfied when a troublesome maniac becomes quiet, is so great that we welcome any evidence of more than usually careful study of their cases. For this, at least, Dr. Savage is to be commended.

W. F. W.

M. LEON BASSEREAU.

THERE died a few weeks ago in Paris one of that group of great syphilographers whose work has made France preëminent in the study of venereal and especially of syphilitic disease.

Léon Basséreau, born in 1810, a pupil of Ricord, who still lives and practices, and his Interne at the hospital, published in 1852 his famous treatise on "The Affections of the Skin Symptomatic of Syphilis." In this work, based, in the first place, upon the writings of the famous syphilogra-

phers of the sixteenth century, and, secondly, upon exact clinical research, Basséreau sought the causes which, in a certain number of cases only, determined the generalization of syphilitic symptoms, and ascertained that induration is so frequent in chancres followed by the syphilodermata that a close connection between this induration and the consecutive eruption must be conceded.

This conclusion is precisely that which Benedetti and Jean de Vigo had arrived at three centuries previously, in noting the livid aspect and indurated callous base of those ulcers which were the precursors of the general eruptions of syphilis.

It remained however to ascertain the true cause of infection as well as that of the primary cause of the induration of chancres, and this Basséreau did by "confrontation," *i. e.*, by examining first the receiver of the syphilis and then the giver in as many instances as it could be done. As a result of this confrontation, Basséreau was able to formulate the law, "Each time that an individual has a chancre followed by general symptoms this generalization results from the fact that the person from whom the infection was received has himself had a chancre followed by general symptoms." From this discovery naturally it had to be admitted that there are two distinct kinds of chancres, infecting, or true chancre, and non-infecting, simple sore or chancroid.

Basséreau, therefore, was the author of dualism, which was finally admitted in France when Rollet had explained by the theory of mixed chancre a number of cases which appeared to be in opposition to this doctrine.

Basséreau's fame rests upon this one work. In addition, he published a "memoir on the influence of iodide of potassium in syphilitic affections,"

but no other work of importance. He was not a specialist, but a general practitioner, and continued such until his sixty-third year, when his son, Edmond Basséreau, a talented young physician who had a year or so before entered upon a career which promised to be as brilliant as his father's, by the publication of a thesis upon "the origin of syphilis," died untimely. This unhappy event broke down Basséreau's health, and he retired from active practice, passing the remainder of his life in retirement, until his death, Nov. 1st, 1887, at the age of seventy-seven.

A. V. H.

DR. C. F. MARKEL, a prominent druggist of Columbia, Pa., and his clerk, have been arrested, being charged with causing the death of J. N. Wonder by dispensing morphine in mistake for quinine, the fatal result being due to an overdose of morphine. The arrest was due to the watchfulness of the physician of the Pennsylvania R. R. Relief Department, who, being struck with the suspicious circumstances of the death, had the supposed quinine analyzed.

SEASONABLE.—We tender the compliments of the season to our readers, and wish them a Happy New Year. If any one should ask us the secret of prosperity, we would feel inclined to tell him, as politely as possible, to "mind his own business."

LETTERS FROM SPECIAL CORRESPONDENTS.

LONDON.

THE COLLEGE OF SURGEONS AND ITS FELLOWS AND MEMBERS—THE INFECTIVITY AND CURABILITY OF CANCER AND CANCEROUS DISEASES (MORTON LECTURE)—THE INCREASE OF CANCER IN GREAT BRITAIN—THE ETIOLOGICAL IDENTITY OF TUBERCULOSIS AND SCROFULA.

The quarrel between the Council of the Royal College of Surgeons and the Fellows and Members of that institution is passing into a yet more acute

stage. The Council has applied to the Privy Council for a supplemental charter; the Fellows and Members oppose the grant unless their grievances are set right in it. At the annual meeting of the College, held on November 3d, a resolution to this effect was proposed by Mr. Timothy Holmes, and carried almost unanimously. Mr. Savory, the Chairman of the meeting and President of the College, undertook to lay the resolutions before the Council, with the request that they should be transmitted to the Privy Council, but refused to transmit them direct. In so refusing he committed another of those blunders which have been so common during his administration; as Chairman of the meeting it was quite within his power to transmit the resolution without in any way endorsing it, and, by so doing, it is of course evident that he would have greatly strengthened his own case before the Privy Council. What has actually happened is that the Council met to consider the matter on the evening of November 10th, and decided to send the resolution to the Privy Council; but the concession was forestalled by the action of the Lord President of the Privy Council, who received two influential deputations on the following day, one from the Association of Fellows and the other from the Association of Members, which laid the whole case before him at great length. Dr. Timothy Holmes and Mr. Tweedy spoke for the Fellows; for the Members Mr. Ernest Hart made a lengthy historical speech, and contended that the meetings of the Fellows and Members were "meetings of the College," and that the Council had no power to over-ride the decisions of such meetings. As an observer who has taken no part in the agitation, it appears to me impossible to doubt which way victory will eventually go; the Members have got a strong case, the Fellows have a stronger, the Council itself is no longer unanimous, and the conservatives in the Council appear bent on committing every blunder in tactics which it is possible for them to perpetrate; our government is now more unrestrainedly democratic than that of any country in the world except France, and even if

the Privy Council risked an unpopular act to gratify personal friendships, the Ministry of whatever complexion would quickly reverse its decision so soon as it appeared that a considerable body of Members of Parliament disapproved.

Mr. Morton, a layman, recently endowed a lectureship at the Royal College of Surgeons for the better study of cancer and cancerous diseases; and the first Morton lecture was delivered by Sir James Paget on November 11th. The lecturer said that the generous founder has doubtless entertained the hope that some method for the prevention or cure of cancer and cancerous diseases might eventually be found. Sir James Paget thought that we might justly hope to find a remedy, and that one most hopeful mode of search was a study of the relations of cancer to other "groups of diseases," the simple or innocent tumors, and the specific (micro-parasitic) diseases. His argument was necessarily largely based on hypothetical considerations, and was not concerned with structural or microscopical peculiarities; rather its basis in fact was to be found in the general biological characters of the whole group of cancerous diseases. It was by these biological characters more than by the histological or the chemical, as far as yet discovered, that the affinities of cancers to the innocent tumors, on the one hand, and the specific diseases on the other might be judged. The specific diseases might be roughly arranged in groups, and the group by which the conformity of cancers and cancerous diseases might be tested was one that includes, as its chief members, syphilis, tuberculosis, glanders, leprosy, and actinomycosis, each of which is known to have a distinct micro-parasite. Sir James Paget then proceeded to trace the broad points of resemblance between these diseases, all included by Virchow among tumors under the name of *granulomata*, and the cancerous diseases; the *granulomata* differed from one another in their characteristic methods of growing, of degenerating and ulcerating about as much as any one of them from cancer. The *granulomata* were inoculable, and also infective; the cancers had never been inoculated, but they were infective, extending to dis-

tant parts of the body by the transmission of materials though the blood vessels or lymphatics. He argued strongly against the local origin of cancer, contending that as we know that in tuberculosis, syphilis, and the other *granulomata* there is, for each, a specific morbid material in the blood, so we should believe that there is at least one in cancer and cancerous diseases. Irritation, injury, degeneration render the parts less able to maintain themselves in health, less able to resist the invasion of any morbid material in the blood which may be brought in contact with them; but the agencies are not in themselves efficient causes, for in many persons they were ineffective.

"To suppose," he said, "that any previously healthy part could, of itself, or in direct consequence of any ordinary change affecting it alone, so definitely alter its method of life, its shape and structure, its manner of growing and degenerating, as to become cancerous; and, still further, to suppose that all parts, however unlike in health, could change themselves into likeness as cancers; all this would be to assume more than can be matched in all the range of sure pathology or of natural history." He again illustrated his subject by a reference to vegetable pathology. The *xylomata*, or woody tumors, often seen on trees, especially on bushes and cedars, and due to buds, or "sleeping eyes," which have remained for a time dormant within normal structures, and have then begun to grow, illustrated the apparently spontaneous production of the innocent tumors from germinal structures delayed in their development. While the galls illustrated the influence of a virus in exciting morbid growth, each insect produced a peculiar and characteristic form of gall, found, it might be, only on special parts of the vegetables attacked, — a fact which was used to illustrate the proposition that each virus requires a susceptible and fitting place and substance; the preference of cancer for certain localities was thus explained by assuming a special local susceptibility, which it was suggested might be the hereditary element in cancer. In conclusion, he contended that as there was so great "likeness and so

little likeness between these diseases and the specific with which he had compared them, we may expect equal likeness in respect of the material on which they essentially depend. If it be so, then we may justly hope that by careful study, both clinical and experimental, we may find the morbid material, microbe, or ptomaine, or one or more of their products to which cancer is due. And, if this be attained, then may we hope to be much nearer to a remedy, preventive or curative."

"I do not believe," he said in conclusion, "that any medicine yet used has ever cured a case in which the diagnosis of cancer was certain. Can such an one be reasonably hoped for? Yes, and the more so if we may count cancer among the specific diseases, for it is of some of these that we most surely have remedies more nearly complete than we have of any other disease whatever. The name commonly used of specific medicines may tell this."

I have treated the lecture at somewhat unusual length, because Sir James Paget has ventured to say in public, what younger and less eminent pathologists have hardly dared to utter; yet the main thought has been in the minds of many for years. The resemblances between the granulomata and the cancer, so ably stated by him, are too striking to have escaped the attention of any person who has had extended opportunities of studying pathology, and witnessing many *post-mortem* examinations. Of the great interest of the question there can be no doubt; and it is not likely to grow less; the returns of the Registrars-General for England and for Ireland show that the mortality from cancer is, apparently at least, rapidly increasing. The council of the Medical Association, at its last meeting, addressed a letter to the Registrar-General for England asking him to take steps to test the suggestion made in one of his reports, viz.: that the increase in the returns is due to "improved diagnosis, and more careful statement of cause: The letter, which was drawn up by Mr. Butler, contains arguments founded on the Registrar-General's statistics which certainly make against his conclusion; Mr. Butler thinks, and his views have now been

officially endorsed by the Council of the British Medical Association, that the only reasonable prospect of discovering whether the increase is real or apparent, lies in the tabulation, through a course of years, of the cancers of each part of the body separately; if it were found that there was an increase in the returns of internal cancer, while the number of external cancers remained stationary, that would confirm the Registrar-General's suggestion of increased accuracy of diagnosis; whereas an increase in the number of deaths from cancer of all parts of the body alike; or a decided increase in the number of cancers of external parts would show that there was a real increase of the disease; since fatal diseases of external parts are so few, that errors in diagnosis could not materially affect the statistical results.

The clinical and pathological differences between well-marked tuberculosis and ordinary scrofula are admittedly so important that it was for some time a favorite doctrine with a certain school that the two processes were also etiologicaly distinct. Many of those who have given most attention to the study of phthisis pulmonosis and to scrofula have arrived at a contrary opinion, which has been confirmed and strengthened by Koch's observations as to the distribution of the bacillus tuberculosis. Mr. Frederick Treves may be quoted as a surgical authority on this point, and the medical side has been well expressed in Dr. Theodore Williams' new edition of the well-known work on *Pulmonary Consumption*, written by his father and himself: "One great gain," flowing from Koch's discovery, "has been to establish the unity of phthisis on a firm basis, and to break down all distinctions between phthisis, tubercle and scrofula, which, judging from the numerous connecting links furnished by clinical experience, we have long held to be artificial." A considerable number of experimenters, the present writer among the number, have produced tuberculosis in the rodents by inoculating them with portions of strumous glands, but there was still room for further research to establish that this sequence is invariable, the more so since Arloing has recently had some

unexpected results. He has found that while guinea-pigs developed tuberculosis when inoculated with glands from a certain case of struma, rabbits did not; and that rabbits, inoculated from the guinea-pigs, even in a second series, remained unaffected. Mr. F. Eve, with a view to test the question further, inoculated rabbits and guinea-pigs from ten cases of strumous glands, taken at hazard. Tuberculosis was produced in every instance but two; in one the inoculation was made into the subcutaneous tissue of a rabbit, and a chronic abscess, containing tubercle bacilli, formed, but tuberculosis did not ensue. In the other case, also a rabbit, no result was produced, but the gland never has undergone fibrous degeneration, and no bacilli could be found in it. No essential anatomical difference was observed between the lesions produced in the animals by strumous glands and true tubercle. The important differences observed, in a large proportion of cases in the human being, must, clinically, therefore, be looked for, according to Mr. Eve, not in a difference in the virulence of the virus, as suggested by M. Arloing, but in the varying power of resistance in the tissues of the infected person. The variations being due either to personal idiosyncrasy or to the mode of introduction of the virus, the influence of the lymphatic gland being, doubtless, the most important factor. We are as yet, however, by no means at the end of the question, and it seems to me that further experiments ought to be made on animals less susceptible than guinea-pigs; in them inoculation with tuberculous material invariably produces general tuberculosis with very great rapidity and remarkable uniformity. When, therefore, we desire to study the mode in which the tissues resist the invasion of the virus, it would appear to be proper to select some animal which possesses greater power of resistance. DAWSON WILLIAMS.

NOEGGERATH has advanced the proposition that women who have had gonorrhoea never thereafter conceive, owing to a condition of inflammation which he terms latent gonorrhoea.

ABSTRACTS AND GLEANINGS.

MATERNAL IMPRESSIONS.—DIXON, in an able and thoughtful paper in the *American Practitioner and News*, combats the views of Fordyce Barker concerning the effect of maternal impressions upon the fœtus. Dr. Dixon believes that "all of the so-called monstrosities, marks, etc., are the result of arrest of development or evolution, pressure by amniotic bands, pressure by umbilical cord, adhesions of the placenta, or produced by some pathological condition of the fœtus or its membranes, or by heredity."

The *Medical Press* states that the English government is returning to the system of long service in India (twenty-one years) for their soldiers. It is found to be poor policy to send home a man who has become thoroughly injured to the climate, and replace him with a youngster who must spend a year or two in the hill sanatoria before he is of use.

A NOVEL SYMPTOM IN WASTING DISEASES.—The sulpho-cyanide of potassium in the saliva has been found by Fenwick to be reduced in amount or altogether absent in wasting diseases, such as phthisis, and the later stages of malignant disease, as well as in fevers. This may prove of use in the diagnosis of gastric cancer.

A sudden diminution indicates a depression in the vital powers. The only available method of gauging its amount is by measuring the intensity of the color when perchloride of iron is added.—(*Med. Press.*)

[This may prove of value in making examinations for life insurance, especially where there is a deficiency of weight, associated with gastric symptoms.—ED. P. M. T.]

A CURE FOR WRINKLES.—When well rubbed in, lanolin passes directly into the skin, and acts as a nutrient to the subjacent tissues, with the effect of smoothing out the folds produced by the attenuation of these structures incidental to age.—(*Med. Press.*)

W. MITCHELL BANKS recommends the application of the thermo-cautery for pruritus ani.

JABORANDI AS A GALACTOPHORE.—A Liege contemporary has called attention to the peculiar influence of jaborandi on the lacteal function. So marked is this said to be that spurious specimens of jaborandi are reported to have been detected owing to the absence of this property. At the same time its effect is only produced to advantage in a certain class of cases, the precise indications for its use not having been as yet ascertained. In the case of a strong woman, weighing over fifteen stone, whose milk secretion had ceased since more than a fortnight, ten drops of the fluid extract of jaborandi, given every four hours, secured an immediate return of the secretion. Things went on well for a time, but in the course of a few weeks the patient became subject to hallucinations and fits of violent excitement. The jaborandi was suppressed and the symptoms disappeared—and the milk with it.—*Med. Press.*

[We started this interesting observation on its travels by publishing it in *The Medical World*, last July, page 203. The case, which occurred in our private practice, will there be found detailed as above, the correspondence being too close for coincidence. We do not see that foreign travel has been productive of improvement; in fact, the only change to be noticed is that the child seems to have completely forgotten its parentage. W. F. W.]

ANTISEPTIC CANDLES are the latest novelty. They are made by combining iodine and salicylic acid, and incorporating with fats, paraffin or wax. Phenol is produced by the decomposition of the salicylic acid.

TATTOOING THE COURSE OF THE ARTERIES IN SOLDIERS.—An army surgeon in France proposes that the course of the principal arteries be tattooed on each soldier's body, so that, in case of his receiving wounds when surgical aid is not at once available, he would know where to apply pressure to prevent death from hemorrhage. "First aid" classes would supersede the necessity for so painful a proceeding, according to a recent issue of the *British Medical Journal*. If "first aid" classes could be made to include all who could possibly be wounded, or called upon

to help the wounded, and if those so taught were to comprehend and remember their instructions, the tattooing would be unnecessary; otherwise the idea has some merit. In case of abnormal distribution of the arteries, it would be much more satisfactory to the soldier were this known in time to save his life, rather than demonstrated at the autopsy.

IODOFORM NOT A GERMICIDE.—Jeffries, in the *American Journal of the Medical Sciences*, details the results of some hundreds of experiments upon the action of iodoform in preventing bacterial growth. The experiments were made under the rules laid down by the Hygienic Institute at Berlin. The conclusions reached are as follows:

Iodoform has no direct action as a germicide, but retards the growth of bacteria.

Iodoform is not suitable for procuring asepsis of instruments, materials or wounds.

It is allowable in infected wounds, where the true germicides are contra-indicated.

It tends to stop serous oozing, and may be indicated where moisture threatens the integrity of aseptic or antiseptic dressings.

ELECTRICITY INSTEAD OF HANGING.—In an interesting article in the *Med. and Surg. Reporter*, Dr. Blackwood advocates the substitution of electricity for the present primitive and barbarous methods of hanging criminals. The application can be made with ease, and a swift and painless death ensues.

PAPAYOTIN IN DIPHTHERIA.—In the *Weekly Medical Review*, Bauduy warmly commends the use of papayotin in diphtheria. He reduces the powder to a paste with water, slightly acidulated with lactic acid, and applies every quarter to half hour with a camel's hair brush. In nasal diphtheria he uses the spray.

FRACTURE OF THE OLECRANON PROCESS.—In the *Canada Lancet*, Mackey records a case of successfully wiring a fractured olecranon ten weeks after the accident. Flexion, extension, induction and supination were completely restored.

SALOL.—Dr. Thorner, in the *Cincinnati Lancet-Clinic*, gives a resumé of the salol literature, and appends his own experience with this drug. He found it of use in rheumatic pharyngitis, when given in doses of ten to fifteen grains thrice daily. In follicular tonsillitis the action was beneficial, but less rapid. In rheumatic torticollis the effect was very pronounced.

In otalgia nervosa and in otitis media, great relief followed the administration of 10-grain doses. Two cases of ciliary neuralgia and two of rheumatic iritis were relieved promptly by salol, although salicylate of sodium had failed in the latter cases.

In acute trachoma, with ulcerative pannus, the patient was able to dispense with morphine, the salol affording prompt and permanent relief.

In one case of acute catarrhal conjunctivitis, which relapsed for months in spite of the salicylate, salol effected a rapid cure, which proved permanent.

AN ADVANCE IN SURGICAL DRESSINGS.—Laplace has proved that when a sublimate solution comes in contact with an albuminous fluid the precipitate of coagulated albumen is devoid of germicidal power, as is also the supernatant fluid. He found that by adding five parts of hydrochloric acid to 1000 parts of sublimate solution (1-1000), the insoluble albuminous precipitate will not form, while the germicidal power of the solution is increased. —(*N. O. Med. and Surg. Journal*.)

REVIEWS AND BOOK NOTICES.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES. Published monthly. Edited by I. MINIS HAYS, A.M., M.D. Philadelphia: Lea Brothers & Co., 1888.

The *American Journal of the Medical Sciences* celebrates the beginning of the new year by dropping the word International from its title and appearing as a monthly.

The change seems a necessary and desirable one, as the day for quarterlies is past. The typography and the general appearance of the journal are all that could be expected, even from such

veteran publishers as Messrs. Lea Brothers & Co. A number of pages of general advertisements appear for the first time in the history of that journal.

The reading pages contain six original articles, fifteen reviews and seventy-four abstracts divided among eight departments. Among those who appear in charge of the departments are some well-known and respected Philadelphia physicians. Having said this much, we may be pardoned for advertising to a matter which may have a serious bearing upon the future success of the new monthly. Out of the large number of excerpts which it contains, but one is taken from a journal which did not oppose the late Congress. This may have been, as we sincerely hope, simply accidental. The succeeding numbers will show whether this is the case, or whether the editorial management of the *American Journal of the Medical Sciences* intends to ignore the labors of the great majority of its countrymen and make it simply the organ of a clique.

We have always looked upon the *American Journal* as being what its name implies, the honored Nestor of medical journals, a dignified publication with a standard too purely scientific to allow personal feeling to influence its course. Such should in truth be that journal which claims the distinction of being the leading exponent of the American medical profession. But if its editors propose to systematically exclude all who differed with them concerning the late Congress, if the journal steps down from its elevated position into the arena of personal controversy, we must augur but a limited degree of success for its new venture.

The Editors of the **PHILADELPHIA MEDICAL TIMES** have their own convictions, which they are not slow to express when occasion offers. But this does not render them incapable of appreciating the good in others, nor has it prevented them from opening their columns to those who differ from them. Since the present management took charge of **THE TIMES**, there has not been a single issue of this journal which has not contained contributions from opponents

of the Congress as well as its advocates. We have sought everywhere for the best materials to offer to our readers, without caring to ask whether the writers were friends or foes of the Congress, or with which college or clique they were connected. Being the only medical journal which bears the name of Philadelphia in its title, we have sought to fairly represent the profession of this city. Anything like the pettifogging weakness of proscribing the writings of all who disagree with us cannot be charged against us.

We sincerely hope that our forecast will prove groundless, and the editors of the *American Journal* will endeavor to make it still deserve its title by giving her readers something more than abstracts from foreign journals and from the handful of home publications which opposed the Congress. We hope that by throwing their influence in favor of harmony in the profession they may win the approbation and support of physicians of all shades of opinion. W.F.W.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

INTRACTABLE NEURALGIA.

Editors MEDICAL TIMES:

Sirs:—In your issue for Oct. 15th, you mention "neuralgia of the left shoulder affecting the nerve of Wrisberg as being very intractable." I had a case of the kind last year (January, 1887), and could not find it described or even mentioned in any medical or surgical work, except in *Ranney's Medical Anatomy*, New York, 1882. The patient was affected with repeated attacks of pains that came on every afternoon, and were most intense in the left shoulder, and inter-scapular region. The diagnosis was obscure, and although heart disease, aneurism, and the existence of malignant disease

were suspected, nothing of the kind could be positively detected after a careful differentiation of all the physical signs that were manifest in the patient. Several excellent clinicians of the profession were consulted, but none of them could give any clear opinion as to any existing organic disease being present sufficient to cause the regular recurring pains that manifested themselves every afternoon. Some months previous to this date, I treated the patient for certain distressing attacks that would come on suddenly, like "hidden seizures," and which I diagnosed as probably caused by gall stones. With diet, mineral waters, and other treatment, these painful manifestations left her, and, finally, the attacks of inter-scapular neuralgia set in, commencing about the first of October and terminating fatally, February 16th following. After she came under my treatment a second time, one month before her death, everything that science and experience could suggest was done for her (she had a trained nurse to attend her), but nothing would avail in the least to alleviate her distressing pains, except hypodermics of morphine.

On February 16th, an attack of the pains set in as usual towards evening, and a slight delay was made in giving the hypodermic; this seemed to exasperate her, and she gave way to a fit of passion and passed away before the injection could be given. I left St. Louis for California, a day or two before her death, and she was attended by an excellent and experienced physician, who was trying to induce her to use as little of the hypodermic as possible, when the patient became greatly chagrined, and, as I stated, went into a collapse and died. No post mortem was granted. Patient was a married lady, aged 48, in excellent circumstances, of the better class, and having everything to live for.

At the present time, I am attending a lady aged 47, married, who has the same kind of an attack of a recurring neuralgia in the inter-scapular region, and affecting the shoulder. With this patient it apparently starts from a strong pulsation of the aorta that seems to be constant, and she insists that all

of the pains in the back come from this last-mentioned trouble in the aorta. I cannot detect the existence of an aneurism or any very abnormal action of the heart; and all that I can make out of the case is that probably some intra-thoracic tumor (possibly mediastinal) may exist that causes all the trouble. It is my opinion that in the first case some internal growth existed, and possibly of a malignant nature; but her sudden demise was entirely unexpected, and is to me inexplicable. Dr. Ranney, *loc. cit.*, says: "It seems probable that pains experienced in the region of the scapula, by patients afflicted with diseases of the digestive organs, are referable in some way to the greater splanchnic nerve, and it is in connection with the nerves of the dorsal region that pain is a more valuable guide than in almost any other portion of the body. It is natural that the medical attendant, unless his attention has been directed to this fact, will attribute the pain to some fanciful cause in the locality of that pain, or to some general diagnosis of neuralgia, malaria, etc., when an anatomical knowledge might direct him aright, both in diagnosis and treatment. The lessons taught by anatomy are of a most practical character, and worthy of the study of those old in the practice of physics."

These admonitions of Dr. Ranney are excellent, and only teach us the necessity of always making a careful diagnosis *whenever it is possible*. Messrs. Editors, will you kindly give your readers a few items regarding this form of neuralgia?

T. GRISWOLD COMSTOCK, A.M., M.D.
567 N. Fourteenth St., St. Louis.

IS EXTIRPATION OF THE UTERUS FOR CANCER A JUSTIFIABLE OPERATION?

THE operation of total extirpation of the uterus for the cure of cancer seems to be at the present time the uppermost thought in the minds of a few surgeons at home and abroad. It sounds to me as being very unsurgical when they say that the operation of total extirpation of the uterus should be resorted to, even if there exist a

general infiltration of cancerous material through the cellular tissue. I do not wish to appear as being severe in criticizing those surgeons who hold to above views. In their eagerness to pose as star actors in the performance of this surgical monstrosity, they have forgotten their knowledge of morbid anatomy and pathology, and have thus rendered themselves wholly void of the first principles of surgery. It has very recently been said by Dr. Dirner, of Austria, that every woman with a cancer of the uterus is a shipwrecked patient, and should submit at once to the operation of total extirpation of the uterus as affording the only chance of effecting a cure. I should like to ask this life-saving surgeon, if it is not a matter of fact in his efforts to rescue the victim from the wreck that a little later on they are caught in the surf, thus bringing to a close this surgical tragedy.

Prof. Shanta, of Prague, says that if the operation is to be undertaken at all it should be performed early, while the surgeon can be sure of operating in healthy tissue. Have we any assurance of operating in healthy tissue in the immediate proximity of a cancer? Have we to-day on earth a surgeon who has acuteness of sight sufficiently developed to enable him to discern when daylight ends and twilight commences? Can they who favor this operation of total extirpation of the uterus for the cure of cancer, promise more for its good behavior in the future than the one who removes a cancerous testicle, or the oculist who enucleates an eye under similar circumstances? What can be said of one will equally apply to all. In my judgment the operation of total extirpation of the uterus is doomed to die the death of the one conceived and executed by Billroth a few years ago for the cure of cancer of the stomach; they cannot survive long, from the fact that they are founded on a faulty pathology. When shall this surgical farce be brought to a close and something like rational treatment instituted? I may say not until the pathologists can read now the hidden secret of this most fatal of all diseases, and then and not sooner can we proceed to the treatment with any assur-

ance of accomplishing a cure, or even staying its progress.

It is to our shame that we are obliged to acknowledged the fact that the origin of cancer remains to-day in precisely the same unsatisfactory condition as it did a century or more ago. With this gloomy outlook before us our treatment must remain in the future as in the past. First, relieve pain, secure sleep, lessen discharges and otherwise improve the general condition of our patients; and by so doing we will best serve the interests of the victims who place their lives in our keeping. Now, in all kindness to those who resort to this operation of total extirpation of the uterus, with the view of curing cancer, let me say to them that by removing a cancerous uterus they leave behind undisturbed the very elements of this disease.

Z. H. EVANS, M. D.

Bay City, Michigan.

MISCELLANY.

THE METHODIST EPISCOPAL GENERAL HOSPITAL, the first in the United States, was opened in New York City on the 15th inst. Prof. H. C. Wood, M.D., of the University of Pennsylvania, delivered the oration from which we take the following:

"Christianity teaches the brotherhood of the race; charity binds the helper to the helped; and yet, in the centuries that have elapsed since the coming of the great Teacher, classes of men have not drawn much closer together. The very poor and the very rich seem separated by a gulf almost as wide as that which stretched between them in centuries gone-by; but we must be patient in continuous well-doing; and especially is such a duty laid upon us as citizens of the United States, a country in which, above all others, classes of men are joined together by a common interest, and in which the fundamental idea of government is to leave the relief of poverty and sorrow very largely to the spontaneous outworkings of private individual and combined effort. There are, indeed, two great problems—one industrial, one philanthropic—which confront the American people, and for

which some proper solution must be found if our country is to be in the future as it has been in the past the hope of the nations. As philanthropists, as hospital friends and managers, we are not here to-day to discuss the industrial question, the labor problem, and yet our action bears directly on its solution. To provide care for the laborer in his hours of pain and disablement is to make one step towards satisfying him when in health. As philanthropists, we are especially interested to-day in the second great problem of the times, namely, how to provide for the poor without causing pauperization. Thrice blessed may the giving be to the giver, but how often thrice accursed is it to the receiver. The gift which robs a man of his self-respect or breeds in him the spirit of dependence tampers with the very foundations of his morale, and brings in its train evil results far greater than the absolute suffering which it may temporarily relieve.

"There are two charities which, in my thought, have always linked themselves together, and which are doubly valuable, because not only do they not increase the spirit of dependence, but also do they return in absolute money value, to the community by which they are bestowed, far more than the original outlay. One of these charities is the nurture and education of the young whose parents are not able to take care of them; the other is providing for medical treatment of the sick and wounded poor. Thousands of people, who during health live more or less comfortably, meeting by the daily effort the daily wants, accumulate no reserve. There is another class who are able to save just a little; if sickness comes to the head of such a family, the daily income shrinks and perhaps disappears, whilst the nurse's, the druggist's and the doctor's bills grow apace. Perhaps it is impossible for the sick man to obtain what he needs; or if this be done, in a very short time the savings of months are swept away or a load of debt accumulated which paralyzes the energy, and makes the after struggle for sustenance seem hopeless. The aid which comes to a man, in a time like this, is to him like the hand of Provi-

dence reached down to raise him out of an impending gulf, from which otherwise there was no escape, and when health returns there is no feeling that in time of health relief should be afforded. The man is strengthened, not weakened, for his daily struggle with fate.

"More than this, I stand here to-day not merely to claim that the properly administered hospital accomplishes good without destroying the self-respect of the working-man, but to assert that the laboring man has the right to demand of the rich that he be taken care of during sickness, and that the community which defrauds the laborer of this just right must some day reap the rewards of its wickedness. The wealth of a community is accumulated upon the foundation of the toil of the so-called lower classes, and the occupation of these classes of necessity is connected with exposure and with danger. Out of these classes are drawn the victims of a modern civilization—a Minotaur which daily must be fed with human sacrifice. The torrent of commerce, hurrying along the iron highways which net-work the continent, crushes and mangles as it goes. The machinery that fills the land with the whirr of its life, has its record of torn limbs and broken bodies; the building of the very bridge that joins city to city adds a new and fatal disease to the overburdened list of human ailments. No great engineering work is accomplished, no great manufactory grows and blesses a nation, no tide of commerce ebbs and flows, but that the seal of its success is human blood and human life. When the mangled artisan is carried through the gates of the hospital, he goes not as a pauper to receive the dole of charity, but as a man claiming from civilization a measure of relief for that calamity with which it has cursed him. The law of the universe seems to be that the race is to be developed by the sufferings of the individual. Hundreds of animals die in struggle with their surroundings that a new species higher in organization may be evolved. The individual man must suffer in body and mind that the whole race may be upheaved, but surely in the day of his sufferings he has the right to claim

that the race which is being perfected by his sacrifice shall minister unto him.

"Not, however, as a philanthropic enterprise which is without alloy in the good that it accomplishes would I ask you to think of the hospital to-day, but rather as a business investment, into which the wise community will not hesitate to put a portion of its capital. No art or science is to-day cultivated with an intensity of purpose equal to that which dominates the medical profession. Not long ago I took the trouble to go over the record of the world's medical writing, and found that in the year 1885 no less than fifteen thousand doctors wrote articles or books upon medical subjects. The success is almost equaled by the activity; but, unfortunately, as power over disease grows, so do the processes of cure become more and more expensive. The simple herb of our forefathers is replaced by massage, electricity, and a host of appliances and processes whose use requires the expenditure of large sums of money. Even if the physician gives his services for nothing, but too often it is impossible for the person in limited circumstances to carry out his direction. The inability to command the best skill and the most expensive processes of medical treatment oftentimes means protracted illness and personal disability which might have been avoided.

"The hospital which offers to the poor the best medical skill gives back to the community that supports it a hundred-fold in the return of the worker in good condition to his labor. Even the simplest machine with which the farmer cultivates the soil must from time to time be taken to the shop for repair, and it is inevitable that the human unit, the machine with which the processes of civilization are carried on, must also be repaired. An unskilful, badly organized shop entails waste of time and imperfect repair, and the mechanic knows full well the gain of sending his tools to that establishment which is best provided and best organized.

"Is it not the more necessary that the most delicate human machine should have, when disabled, the best of care, that it may be returned to the work

that is before it with the least delay and in the fittest condition? There is still another side of this question to which I would like to direct your especial attention. I have already spoken of the great advance of modern medicine, an advance which brings to all increase of health and length of life. All advances of medicine are made through the physiological laboratory and the hospital; neither of these workshops by itself suffices; in the one is perfected the materials which are rough-hewn in the other. There are in every Anglo-Saxon community well-intentioned but not overwise persons the outcry of whose life is against the physiological laboratory. It would take us widely from the thoughts of the present moment to enter into any detailed discussion or defense of vivisection. Yet a few words seem in place. Medicine is an experimental science; all advance must come through experiments, and for the purpose of experimentation it is necessary to be able to vary the conditions of the experiment. The chemist adds two mixtures one to the other, and cause a new precipitate. To determine the nature of that precipitate he must be able to abstract from the mixtures one substance after another, until he finds what it is that causes the reaction. We cannot vary the conditions of our experiments upon the human being beyond certain limits. We are not justified in making upon the human being any experiments which possibly may be dangerous or capable of harm; but in the animal we can almost at will vary the conditions, and with perfect justification may make experiments that sacrifice life. After the subject has been worked out upon the animal, and we have learned what we can do, then can we apply our new knowledge in the hospital, and develop the exact nature and scope of the new power which has been acquired. I am anxious that I shall not here be misunderstood. The sick in the hospital almost universally are as carefully and as thoroughly treated as are the rich in their sick chamber; but they are more massed together, so that time can be given by the physician to a number of cases of the same character. They are under

more constant medical surveillance, so that the effect of remedies can be watched from hour to hour, and they are more completely under the command of the physician—conditions which are imperative when new methods of treatment are to be instituted.

"It is in the physiological laboratory that the under-lying science of new methods is worked out, and safety for their employment in disease assured.

"Will you pardon me an illustration from my own experience? Hearing that a certain Texan bean was in former times used by the Indians as an intoxicant, I procured a supply, and discovered its active principle an alkaloid. On experimenting on the dog, I found, however, that although this principle did affect the brain somewhat as morphia does, it had also other actions which forbade its use in practical medicine, and the drug was rejected. Another time there came to me the thought that possibly an alkaloid which a German chemist had just discovered might be useful in practical medicine. Testing it upon the dog, I found that it caused deep sleep without interfering with heart, lungs, or other vital organs. In my wards at the University Hospital was a case of acute mania of the wildest type, with perpetual delirium and sleeplessness, over which the ordinary narcotics had no control. Applying to the human being my knowledge of the action of the new drug, acquired by studies on the lower animals, I had the happiness to see in a few moments quiet and calm repose spreading over the chaos of furious fighting, and a valuable narcotic, now used in every part of the civilized globe, was added to the *materia medica*. In South Africa the little bushman, crouching behind a rock, shoots his tiny poisoned arrow in the passing animal or the assaulting enemy with no uncertain result. Some years ago such an arrow fell into the hands of Professor Fraser, of Edinburgh; scraping from its points the deadly material, he was able to perceive, by experiments upon the lower animals, that it had a powerful action upon the heart. Years passed by, and, as the result of inquiry set on foot by Professor Fraser, a commercial supply of the poison was obtained, and the

very plant which yielded it was made out. To-day the tincture of strophanthus, the arrow poison of the African savage, brings relief into the palace because, through the physiological laboratory and through the hospital, Professor Fraser worked out its action.

"Then, again, the hospital pays the community because it is the training school of the individual physician. The man who holds his highest place in the profession holds it by virtue of the weeks and months and years of conscientious labor performed without direct recompense in the wards of the hospital, and it is in these wards that he passes down to successive generations of pupils the grains of truth he has so laboriously gathered. If there were no human suffering to be relieved, if there were no heart to be comforted when crushed out by the processes of civilization if there were no workers to be sent back to labor, I insist that the hospital would be still a necessity in every community as the workshop in which the science and art of medicine is perfected, and as a school where medicine is taught, and the arena in which the individual physician is trained to the highest perfection."

"RACES AND PEOPLES."—Dr. D. G. Brinton delivered the third of the course of popular lectures at the Academy of Natural Sciences on December 23d. It was the second of his lectures on "Races and Peoples," and was devoted to a consideration of their history. The lecturer said that he held to the theory that man originated in a single centre, from which at some very remote period he was dispersed over the earth. We know that there is a concatenation of organic forms by which one group of forms gives rise to a higher. There being no anthropoid apes or allied fossils found in Australia or America would exclude them from consideration as the birthplace of man. The popular opinion is that man originated in Southern or Central Asia, but the opinion is growing that the species first existed in the Tertiary period in Western Europe or in the country that extended west of Western Europe. He then considered the five races separately. It has been a long-cherished

delusion that America was peopled at a comparatively recent time. The American Indian race is probably as old as any of the other races, as gravel contemporary with the glacial period bears marks of the presence of man. Discoveries made in Ohio within the past two months confirm this theory. The race appears to have migrated from the north to the south, and then from the tropics back to the temperate zone, as is indicated by the transmission of tropical plants to the more northern parts of the country. The culture of the American race was developed in several important centres, but not to as great an extent as the races of Europe and Asia. It reached its maximum before the discovery of America. The discoverers found ruined cities whose builders were then unknown. The traditions of the nations themselves point to a far greater power than then existed. There were, altogether, one hundred and fifty linguistic stocks in North and South America, but only two or three rose to high culture. The most important in Central America was the Aztec or Mexican, which developed a culture in some respects strong and promising and in others lamentably defective, while in South America the Peruvians were most notable. These two bore aloft the standard of culture in the American race. The Oceanic race appears not to be of great antiquity, the most careful students not thinking that the eastern islands of the Polynesian Archipelago have been settled more than 1500 years. The inhabitants have traditions of islands to the west to them, but of none to the east. They are believed to have been populated from Southern Asia. At no time has the race raised itself to a high degree of culture. In Sumatra and Borneo we find a literature of some merit, but it is due to the influence of East India.

Between the African and Malayan races there must have been a large intermixture, as in Australia we find a cross between the two. The Papuans, of New Guinea, are typical members of the African race. In Southern Africa are the Hottentots or Bushmen, small of stature and with a language almost unique in its character, a large

part of its phonetic elements being inspirates. Immediately adjoining them are the Caffirs, a finely developed people with a harmonious language and a considerable culture. North of these are the typical Africans, the Soudan negroes, who have never attained any highly developed system of culture. The African elephant has never been tamed by the African people, nor have the latter ever succeeded unaided in constructing buildings of cut stone. The true Ethiopians are found at the head waters of the Nile, and are probably the result of an ancient intermixture of races.

The three races mentioned are often spoken of as the lower races, and the facts of history place them lower than the Asiatic or European.

The Asiatic race developed itself at some remote period in Central Asia. Its migrations have been extensive and aggressive. It is represented by the Tartars in the North and the Mongolians in the South. The Chinese people developed its culture very early, it being favored by the geography of the country, three great rivers flowing toward the sea and fertilizing wide valleys, separated by high mountain ranges.

Long before the Christian era the Chinese had domesticated animals and cultivated the cereals. However, after reaching a certain degree of culture, they became subject to the Tartars, and are now at the mercy of the military power of their Tartar rulers. After the Tartar eruption the Finns, the Turks and the Magyars were left in Europe.

The European race has been the standard-bearer of the culture of the world. China, though early in its advance, did not influence the rest of the world, being shut off from it by its geographical situation. In certain quarters the opinion is held that the white race came into Europe from Asia. The first mention of the migration of human beings in Genesis, however, represents them as going toward the east. This also corresponds with the traditions of Greek and Roman authors. The Aryan branch is traced to a locality on a line which would connect the Black Sea with the Baltic.

There are many reasons which might be given to show that the original home of the white race was in Europe. The only serious race conflict in Europe was the irruption of the Mongolians.

The next lecture of the course will be by Prof. Heilprin on "The Borderland of Two Kingdoms—Plants and Animals," January 13th. Dr. Brinton will speak on "Races and People—Mastery," on January 27th.

QUARANTINE DOES NOT DEAL WITH THE MOST DANGEROUS DISEASES.—Relative to the persons who brought scarlet fever to Sutton's Bay, Michigan, and who came on the steamship Ohio, reaching New York, September 30th, 1887, Dr. Wm. M. Smith, Health Officer of the Port of New York, says:

"Developed cases of diphtheria and scarlatina arriving on vessels at this port are removed to Ward's Island. It is impossible under the law for the Health Officer, or the authorities at Castle Garden, to quarantine persons who have been exposed to the contagion of those diseases, consequently the sick on board vessels during the voyage, doubtless, often infect the relatives, or those with whom they come in contact * * * and who carry the latent contagion to interior communities. I would be glad if the law allowed those exposed to the contagion of these diseases to be held for observation, as is the case when persons are exposed to the contagion of small-pox."

The instance mentioned above is an illustration of what Dr. Smith says; the child having been exposed during the voyage and taken sick with scarlet fever the day after arrival at New York; so the infected child went on its way, to spread scarlet fever. In Michigan, at least ten times as many deaths occur from either scarlet fever or diphtheria as from small-pox.

Is it not time that the whole subject of quarantine was investigated by the States, and by the United States Government, with a view to protecting the people of this country from the introduction of the really dangerous diseases?

HENRY B. BAKER, *Secretary.*

Office of the Secretary of the Michigan
State Board of Health, Lansing,
Michigan, November 3d, 1887.

EPIDEMIC INSURANCE MOVEMENT.—An excellent system of insurance against the small-pox prevalent in Sheffield has been set on foot by workmen in more than one factory. It having come to their knowledge that some of their fellow-workmen continued their attendance at the factory, although they came from infected houses, they called a meeting at which it was decided that pending the period of danger a levy should be made, amounting to $2\frac{1}{2}$ per cent. of each man's average earnings, so as to provide a fund out of which any man coming from a house where there was small-pox could be paid his average weekly wages, until it was certified that there was no further risk of infection. The example is worthy of imitation for diseases other than small-pox.—*Lancet*.

The Thirty-ninth Annual Session of the Medical Society of the State of Pennsylvania will be held in Philadelphia, beginning Tuesday, June 5, 1888.

In order for the proper assignment of places on the programme, those who propose to read papers are requested to send the titles thereof, not later than April 15, to JOHN H. PACKARD,

Chairman of Committee of Arrangements,
1924 Spruce St., Philadelphia.

OBITUARY.

DR. ROBERT HILL CLARKE died at his home at Milford, Del., at noon, Dec. 20, from paralysis, at the age of 69 years. The deceased was a native of Milford, and graduated from the University of New York in 1844. In 1857 President Buchanan appointed him to the Paymaster's Department of the United States Navy, which position he filled until 1880, retiring with the rank of Commodore.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM DEC. 4, 1887, TO DEC. 17, 1887.

MAJ. G. M. STERNBERG, SURGEON.—Assigned to duty as attending surgeon and examiner of recruits at Baltimore, Md.

MAJ. P. J. A. CLEARY, SURGEON.—Assigned to duty at Fort Wingate, N. M.

FIRST-LIEUT. C. L. G. ANDERSON, ASSISTANT-SURGEON.—Assigned to duty at Fort McDowell, Ariz.

CAPT. A. W. TAYLOR, ASSISTANT-SURGEON.—Assigned to duty at Fort Robinson, Neb.

CAPT. A. H. APPEL, ASSISTANT-SURGEON.—Assigned to duty at camp at Highwood, Ill., relieving Asst.-Surgeon H. O. Perley.

CAPT. H. O. PERLEY, ASSISTANT-SURGEON.—Will rejoin his proper station (Fort Wayne, Mich.) S. O. 285, A. G. O., Dec. 8, 1887.

CAPT. JOHN VAN R. HOFF, ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect on or about the 12th proximo. S. O. 128, Dept. Mo., Nov. 30, 1887.

CAPT. BENJAMIN MUNDAY, ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect about Dec. 15, 1887. S. O. 280, A. G. O., Dec. 2, 1887.

FIRST-LIEUT. W. B. BANISTER, ASSISTANT-SURGEON.—Ordered to proceed at once from Fort Lowell, Ariz., to Fort Wingate, N. M., and report to the commanding officer for duty. S. O. 128, Dept. Ariz., Dec. 1, 1887.

FIRST-LIEUT. H. S. T. HARRIS, ASSISTANT-SURGEON.—Ordered from Fort McIntosh to Camp Pena Colorado, Texas.

FIRST-LIEUT. PAUL CLENDENIN, ASSISTANT-SURGEON.—Ordered from Camp Pena Colorado, Tex., to Fort McIntosh, Tex. S. O. 143, Dept. Texas, Dec. 12, 1887.

FIRST-LIEUT. J. M. CABELL, ASSISTANT-SURGEON.—Ordered for duty at Fort Niobrara, Neb. S. O. 286, A. G. O., Dec. 9, 1887.

CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING DECEMBER 17, 1887.

MEDICAL INSPECTOR A. HUDSON.—Ordered to the "Trenton."

MEDICAL INSPECTOR N. L. BATES.—Detached from the "Trenton," and placed on waiting orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING DECEMBER 19, 1887.

MURRAY, R. D., SURGEON.—Granted leave of absence for fourteen days, Dec. 8, 1887.

GASSAWAY, J. M., SURGEON.—Granted leave of absence for fifteen days, to take effect when relieved, Dec. 17, 1887.

IRWIN, FAIRFAX, SURGEON.—Relieved from duty as Acting Chief Clerk, Office Supervising Surgeon-General, and to await orders.

CARRINGTON, P. M., ASSISTANT-SURGEON.—Ordered to examination for promotion, Dec. 14, 1887.

BROOKS, S. D., PASSED ASSISTANT-SURGEON.—Granted leave of absence for thirty days, to take effect when relieved, Dec. 15, 1887.

MCINTOSH, W. P., ASSISTANT-SURGEON.—To proceed to Wilmington, N. C., for temporary duty, Dec. 13, 1887.

MAGRUDER, G. M., ASSISTANT-SURGEON.—Granted leave of absence for twenty-one days, Dec. 19, 1887.

PHILADELPHIA MEDICAL TIMES.

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CLINICAL LECTURE.

ON VACCINATION.

BY WM. F. WAUGH, A. M., M. D.,

Professor of Practice of Medicine in the Medico-Chirurgical College of Philadelphia.
(Reported by Manley F. Gates, Medical Student.)

Delivered October 17, 1887.

GENTLEMEN:— This morning I shall show you how to perform vaccination.

Nearly every one is supposed to know how to do this operation, yet scarcely one in ten properly performs it. We are met at the outset with the question:

Is it possible that the production of one disease in the system will prevent infection by another? Certainly not. Vaccination infects the subject, as Jenner taught, with the disease which it is desired to prevent, but greatly lessened in virulence by the fact of previous transmission through the body of one of the lower animals.

Two forms of virus are in common use, the bovine and the humanized. The bovine is taken directly from the heifer, while the humanized is from the vesicle of a recently vaccinated person. Notwithstanding the commonly received opinion on this subject, in common with most physicians of the largest experience in vaccination, I

prefer the humanized virus. My reason is that we are but little acquainted with the disease of animals; although they are afflicted with some of the most virulent affections known.

Some years ago, the Registrar-General of Great Britain announced that one-half of the cattle slaughtered for the London market was afflicted with tuberculosis. When one remembers the inoculability of tubercle this thought is anything but pleasant. Besides, it must not be forgotten that there is a peculiar virulence in the diseases which are transmitted to the human race from the lower animals. Where can we find affections as deadly as rabies, glanders and anthrax? Surely, if we must choose between our own capacity to judge of the fitness of a child as a vaccinifer and the ability of a veterinarian to judge of the fitness of a heifer, we ought not to hesitate.

Those who have inoculated persons with syphilis, in vaccinating, have exaggerated the difficulty of avoiding this accident, to excuse their own culpable negligence. They have thus beclouded a simple matter, and brought an unmerited reproach upon humanized virus. Dealers in bovine virus have encouraged this tendency.

The physician should use virus (either humanized or animal) only when he

is perfectly assured as to the purity of its source. And I have never yet met with an instance where an error has been made which was not due to inexcusable carelessness.

Humanized virus is weakened both by using crusts from persons who have been previously successfully vaccinated, and also by waiting till the formation of the crust has proceeded too far before it is removed from the arm. The vesicle should have been well developed, and the patient have had at least slight fever, as this is a natural accompaniment of a successful vaccination.

If the physician select his material from the most typical case of successful vaccination, which he can obtain out of a large number, he will find that its activity will increase in his hands, but if he be not careful in his selections, the characteristic power of his virus will rapidly deteriorate, and will finally become utterly worthless as a protection against variola. Good management and careful thought repay one as well in the vocation of the physician as in any other.

The transmission of a host of diseases, many of them not contagious, has been credited to the account of vaccination, but the real danger is one only: that of infection with syphilis. This accident I have never seen, but unfortunately many cases are on record where it has occurred. Impetigo contagiosa, of which the shallow fragile vesicles break out in all parts of the body, may be conveyed by vaccination, and is one of the most common of the sequences which terrify the patient and friends. It is, however, of little consequence, and is easily cured.

Varicella or chicken pox may also be inoculated, together with the vaccine virus. To these two accidents is due a large share of the ill repute which has fallen on vaccination.

Occasionally, some singular results have followed this operation, as in cases with a constitutional tendency to scrofula or eczema, an outbreak of which is apt to follow after vaccination.

It also usually aggravates all febrile affections.

In very many instances, patients mistake the *post hoc* for the *propter hoc*, and bring an unjust accusation against the physician of having been the cause

of such diseases as tubercular meningitis or pneumonia, and I am not quite sure but that some people would attempt to connect in some way a broken leg with the vaccination.

To establish the fact that a disease has been really transmitted by a vaccination, it is necessary that the following points be considered:

1. The vaccinated child really has the disease and did not have it before being vaccinated.

2. It is an affection which can be transmitted by inoculation.

3. The child from which the virus was taken had at that time the disease in question.

4. Other children, vaccinated with the same virus, are also affected with the same disease.

An exception may be made in the case of erysipelas, which may result from the use of filthy instruments. A most striking instance of this occurred in Philadelphia. A vaccine physician, before starting on his round, powdered a crust, reduced it to a paste with water, and allowed it to dry on a glass plate. Whenever he performed a vaccination, he added a drop of water to the mass, and allowed the surplus to dry again. About twenty operations were performed; and twenty times the mass was moistened and dried.

The next day, the remainder of the same mass was used, in the same manner, to vaccinate twenty other children. Every one of those vaccinated on the second day was seized with erysipelas, the germ of which had evidently attacked the decomposing virus during the night. The warmth of the weather contributed to this result.

It is best to prepare the virus separately for each person; and after every vaccination wash the plate and the instrument before repeating the operation.

As to the time for taking the virus, the custom varies in different countries. In America it is usual to wait until the crust has fully formed, and to use it; while in England the vesicle is punctured on the sixth day, and the clear fluid is used.

The English method is really the better, as after the sixth day the power to inoculate is diminished; but it is

not generally well thought of by the American public.

The fifteenth day is the proper time on which to remove the crust for use, as before that time the arm will bleed, and later the underlying film of pus will have dried and adhered to the crust, coming off with it. If carefully done, the operation will give nearly as good results with a crust removed at fifteen days, as with fluid from a vesicle.

The layer of pus which wets the under surface of the crust is not vaccine matter, but ordinary pus, and should be carefully wiped off, or, if dried on, should be scraped from the under surface of the crust. If this precaution be neglected, the patient may faint, or an abscess will be apt to follow the vaccination.

In the cases which I bring before you now, we shall use the best bovine virus which can be obtained, and which I am sure is of good quality.

In the performance of the operation, I prefer scraping to cutting, as the former leaves a larger surface exposed for absorption; and I am careful not to go deeper than is necessary to make a little blood show, for if there is bleeding it will prevent absorption of the virus. It makes no difference what part of the body is selected, but for the sake of uniformity, and on account of the requirements of the school laws, the arm is the most convenient place. I believe that vaccination in one place gives ample protection. The best age is three months, and it should be repeated at seven years and again at fourteen. This will ordinarily be sufficient, but if small-pox threaten, all the people in the house and the immediate neighborhood should be at once re-vaccinated.

It has been my misfortune to have had, out of a total of over ten thousand, one in which a serious result followed vaccination. In this case the child rubbed the spot, and put its fingers directly into its eyes; thus causing the formation of vaccine vesicles on the cornea, and resulting in a nearly sightless eye.

THROUGHOUT the year no other substance is so wholesome or so preventive of chill as a woollen fabric.—*The Lancet.*

ORIGINAL COMMUNICATIONS.

THE MORBID ANATOMY OF PERI-CÆCAL INFLAMMATION.

BY J. H. MUSSER, M. D.

Read at a Meeting of the Philadelphia County Medical Society, held December 14, 1887.

MUCH confusion appears to exist in regard to the nomenclature of the inflammatory affections of the region we are about to consider. It may, therefore, be well to state the meaning of the various terms which will be used in this discussion. By typhlitis we shall understand inflammation of the cæcum; by peri-typhlitis, inflammation of the peritoneum covering the cæcum; by para-typhlitis, inflammation of the connective tissue behind the cæcum. The term typhlitis is often used to include inflammation both of the cæcum and of the appendix. We shall, as suggested by Dr. Fitz, use the term appendicitis for inflammation of the appendix, appendicular peritonitis for inflammation of the appendix and its serous covering, and para-typhlitis for inflammation of the connective tissue around the appendix, as of the cæcum, or, if you please, peri-cæcal abscess.

It is well to know the relative importance of the inflammatory affections in this portion of the intestinal tract. Typhlitis has been considered by systematic writers to be a frequent affection, and yet it is difficult for pathologists to find records of post-mortems in which this condition has been found.

It is true that some writers, especially the Germans, have described cases particularly of stercoral typhlitis, in which inflammation and ulceration of the mucous membrane of the cæcum, by pressure from fecal impaction, was present. Most of us will, however, agree with Fagge that typhlitis is a good general expression, used for all varieties of inflammation of intestinal origin occurring in the right iliac fossa, but that in the majority of cases the correct term should be appendicitis. Fagge relates a case of Williams' in which the patient had all the symptoms of typhlitis and peri-typhlitis, with a tumor in the right iliac fossa. He was recovering from the alleged typhlitis

when an acute affection of the pleura caused his death, and at the post-mortem examination there was found appendicitis, with ulceration and perforation, and not typhlitis.

Dr. Wilkes agrees with Fagge in this view, and they consider that the difference in degree of the inflammation alone accounts for the difference in the symptoms, and that the largest number of cases are due primarily to inflammation of the appendix.

That inflammation may occur in the cæcum as it may occur in any other portion of the large intestine, no one will deny. But we can say from the records of Dr. Fitz that perforation of the cæcum is most rare, for in a most extensive research he was able to find but three cases, and, in these instances, due to foreign bodies. We shall, therefore, with Fagge, consider that appendicitis is the real affection that occurs in the region we are discussing (see Appendix, I.).

A word with reference to the anatomy. The cæcum normally varies much in position as well as in shape. On the blackboard are drawings of different forms of the cæcum, as detailed by Treves in his lectures on the anatomy of the intestinal canal. He thinks that the cæcum is most frequently found, not in the right iliac fossa, but on the psoas muscle itself, or in the pelvis; that the cæcum is entirely surrounded by peritoneum, rather than only partially, and, therefore, that behind there is no areolar tissue, as was described by the older anatomists. He does not believe, moreover, that there is a meso-cæcum.

It is also of importance to note variations in the appendix in the consideration of peri-cæcal inflammation. The usual position, as found by Mr. Treves and Dr. Fitz, is behind the ileum and its mesentery, with the tip pointing toward the spleen. The second most usual position is behind the cæcum, with the tip pointing upward. Long appendices usually take this upward direction. Fitz also refers to its lying on the psoas muscle, with or without the tip in the pelvic cavity, and believes, from recent examinations, this to be a most frequent position. There are other variations in position.

It may stretch across the pelvis and become adherent to the sigmoid flexure of the colon, and in one instance I have seen the appendix in the inguinal canal associated with hernia. In another instance it was adherent to a pyosalpinx (see Appendix, II.). The appendix varies in size, it varies as regards the character of its walls and it varies as regards its contents. It may vary in length from one and one-fourth to nine inches. Here is a famous specimen in which the appendix was nine inches in length. It lay behind the colon, reaching to the under surface of the liver (see Appendix, III.). In cases dying from causes not associated with this region, the appendix is often found as a cord-like body, having been the seat of previous inflammation. It may have a dilatation either at its blind extremity or in some portion of its length, especially pouch-like at the mouth. Sometimes the entire canal is dilated and filled with catarrhal products.

The character of the contents is of importance. Various articles have been found in the appendix, but chiefly fecal masses. Seeds of various kinds, buttons, bristles, worms, shot, pins and gall-stones have also been found. It is in all probability on account of the presence of these foreign bodies that we have the serious secondary symptoms that arise (see Appendix, IV.).

I shall next speak of the morbid anatomy of peri-cæcal inflammation. First, with regard to the manner of making a post mortem examination in such a case. There is usually an extreme degree of peritonitis, and unless the autopsy is made with great care, it will be impossible to find the seat of perforation, if one exist, and the exact conditions and relations of the peri-cæcal inflammation. The easiest method is to begin at the first loop of bowel that is reached and from that unravel the intestines, separating with great care the adherent parts. If a source of obstruction be found, tie the bowel on both sides and examine the portion in situ, opening the gut, if required. Such an examination is absolutely necessary in order to make a thorough study of the part.

Inflammation of the appendix occurs both of the simple catarrhal and of the

ulcerative type. That we have frequent catarrhal inflammation we know from the lessons of morbid anatomy. Clinically, it would be impossible to determine the presence of such an inflammation, however. Catarrhal inflammation with succeeding ulceration, local or encysted peritonitis, and, finally, perforation, also occurs; and the following conditions are generally found after death. In the first place, on section of the abdominal walls, there is found, especially in the right iliac region, an oedematous state of the tissues; not only may there be serous oedema, but there may also be infiltration of pus, due to the burrowing from the primary abscess. The peritoneum, if involved, will exhibit an intense degree of inflammation with the characteristic injection, sometimes general, sometimes limited; and more particularly to the right iliac fossa and the pelvis (see Appendix, V.). Serum will be found in the peritoneal cavity, and in some instances pus; blood is occasionally found. In the more severe forms, especially, large flakes of lymph cover the intestines, the parietal peritoneum and the abdominal organs. The intestines are also more or less adherent to each other, depending upon the duration and the degree of the inflammation. The location of the abscess, for it is usually circumscribed, depends upon the position of the cæcum. There are three positions in which it is most frequently found—either in the right iliac fossa just above Poupart's ligament, or behind the cæcum, or in the pelvis. In a case which recently came under my observation, the abscess was found in the pelvis, one and one-half inches below the level of the psoas muscle, four inches from the anterior superior spine of the ilium on the right side, and two inches from Poupart's ligament. In another case the abscess was found behind the cæcum in the connective tissue of the right iliac fossa. The size of the abscess varies, sometimes containing only two or three ounces of pus, and in other instances as much as a pint or more has been removed. The walls of the abscess differ according to its position. In the first instance mentioned the upper or anterior wall was made up of the cæcum, the right of the pelvic wall, while poste-

riorly and on the left it was circumscribed by the adherent intestine. The walls of the abscess may be made up of the intestines alone. The appendix is always found in the abscess, and has undergone changes varying in degree with the duration and severity of the inflammation. Inflammation and ulceration of the mucous membrane, serous or purulent infiltration of the walls, with perforative ulceration and encysted or localized peritonitis, are discovered. In some instances a portion has sloughed entirely off and cannot be found, having undergone dissolution; in others it is found as a soft mass of necrosed tissue (see Appendix, VI.). The perforation varies in size; sometimes it completely surrounds the appendix, or even severs it in two, or it is sufficiently large to admit a probe only, while even in other instances it can scarcely be detected. Sometimes two or more perforations are found, and frequently they are covered by recent lymph. The canal of the appendix is very often dilated. We usually find in the canal, near the cæcum, a foreign body; it may, however, be found in the abscess. In the cases detailed by Dr. Fitz, foreign bodies were found in sixty per cent. In other cases their presence or absence could not be positively determined, from haste at the autopsy, from their disintegration, or from their discharge into the bowel, so that the proportion is probably larger than stated. There is one point of importance in reference to the surgery of this region, and that is, that the perforation usually occurs within one and one-half or two inches from the colon. Whatever may be the length of the appendix, the perforation is as a rule found at the point just indicated.

There are, of course, many cases which do not terminate fatally. Under such circumstances resolution takes place, or the abscess becomes encysted, it undergoing the usual changes, or ruptures into some neighboring organ. Dr. Bernardy related a case to me where rupture occurred in the upper portion of the rectum and also through the abdominal wall at the umbilicus. Dr. Edwards had a case in which fully one and one-half inches of the appendix had sloughed off; the abscess ruptured into the bowel, carrying with it the portion of

the appendix and a mass of grape seeds, which were discharged together. The abscess may discharge through the abdominal wall, through the scrotum, into the hip-joint, through the loin or the perineum, or in other directions. Sometimes the pus burrows upward, even as high as and into the pleural cavity. I may say that the bladder is a favorite seat for the rupture of such abscesses.

That cure may take place in cases of perforation of the vermiform appendix, this specimen distinctly shows. It was prepared by Dr. William Pepper, and is in the museum of the Pennsylvania Hospital. The patient died of another affection. The appendix was cord-like, except in one place, where an old perforation was seen, with organized blood-clot and lymph on the surface.

These are the chief points in regard to the morbid anatomy of peri-cæcal inflammation. In the first place, that peri-cæcal inflammation is due, in the larger number of cases, to the inflammation, ulceration, and rupture of the appendix vermiformis with the secondary formation of an abscess; that the position of the abscess depends entirely upon the original position of the appendix; that the further course of the abscess cannot be determined; that in the larger number of cases the inflammation and ulceration are due to the presence of a foreign body occluding the canal—a retention inflammation. The sequence of events appears to be as stated; and while it may appear to be a refinement of terms to differentiate between typhlitis and appendicitis, it is almost necessary in order that a correct and well-defined appreciation of the pathology be determined, so that early and proper treatment may be instituted. Unless such a refinement be made, cases of this kind will be frequently treated as simple typhlitis, whereas in sixty per cent., or perhaps a larger proportion, they are cases of inflammation of the appendix.

APPENDIX.

The text is allowed to stand as furnished by the stenographer, and the following notes are presented explanatory in a measure of the text. They are based on the appearance of

the specimens the writer had on exhibition at the meeting, collected from private sources and from hospitals. Some twenty specimens were obtained for this purpose. The writer's best thanks are due to Drs. Pepper, Edwards, Bernardy, Willard, Woodbury, Longstreth, Hinsdale, Seltzer, Daland, Bodamer, and others, for notes and specimens. Some excellent descriptions may be seen in the Catalogue of the Museum of the Pennsylvania Hospital.

I. Strictly speaking, we should say the sequence of typhlitis, perityphlitis, and peri-cæcal abscess occurs but rarely. A typhlitis and perityphlitis, no doubt, are seen clinically, but the cases do not come to the post mortem table unless perforative appendicitis occurs conjointly. For this reason, and because a similar sequence of lesions does not obtain in similar inflammations of the large bowel under like circumstances, as fecal impaction from stricture, or from paresis in the aged or after typhoid fever, the pathologist may well doubt the existence of perityphlitis and succeeding peri-cæcal abscess. Moreover, in the more violent inflammations of the gastro-intestinal tract, in gastritis, enteritis, or in dysentery, such sequential lesions are not found.

II. *Case I.*—Matilda Thomas, aged one hundred and four years. Cause of death, exhaustion from strangulated hernia. (Abstract from autopsy record, Philadelphia Hospital.) Abdominal cavity; no effusion; adhesion of large and small intestine; appendix dilated to size of first finger, end of it incarcerated in inguinal canal, with portion of mesentery and small intestine; owing to post-mortem discoloration, color of parts could not be determined; local peritonitis; in canal and layers of muscles and fasciæ considerable amount of greenish pus; the portions outside of canal adherent to the bladder, uterus, and ovary, the latter being included in the inflammatory mass. Organs occupy normal position. (Musser.)

Case II.—Philadelphia Hospital. Female, aged twenty-two years. Appendix four inches long, dilated to size of finger, contained mucoid fluid, adherent to a large pyosalpinx. (Musser.)

III. From Museum of Pennsylvania Hospital, described by Wistar. (See

Catalogue of Pathological Museum, 1869.)

IV. Cranberry seeds (Mears). Fecal concretions (Hartshorne, Daland, Hinsdale, Seltzer, Musser). Grape seeds (Edwards, W. A.). A concretion one-half inch long and one-quarter inch thick, cone-shaped, apex pointing toward the perforation in the appendix, base concave, firm, fecal color and odor, in mass of which black bodies, size of cranberry seed, were found. It completely occluded the canal, causing retention of the natural secretion, inflammation, ulceration, etc. The perforation was one-eighth inch from the apex of the concretion (Musser). A phosphatic concretion in Mütter Museum (Woodbury).

V. General peritonitis (Woodbury, Willard, Hall (Mütter Museum), Bodamer [Case I.], Seltzer, Pepper [1637 Pennsylvania Hospital Museum], Longstreth [Pennsylvania Hospital Museum Catalogue, No. 1368¹⁰], Meigs [Pennsylvania Hospital, 1366], Bernardy, Musser. Local peritonitis (Mears, Pepper, Hinsdale, Bodamer [Case II.], Hartshorne, Musser).

VI. Two inches of the appendix necrosed, slate-gray color, soft, floated in the pus, attached slightly to the healthy stump (Musser). Appendix sloughed off. Male, forty years. Peritonitis fourth day (Bodamer, Case I). Appendix one and a half inches long, ulceration one inch from bowel, a few lines in diameter. No communication between appendix and cæcum. Gelatinous mass in appendix (Bodamer, Case II.). Appendix removed by amputation, was attached by its blind extremity to omentum, also removed. Length two inches, one inch occluded by concretions, and one dilated and empty (Woodbury, Mütter Museum). Appendix two and a half inches long. Ulceration three lines in length and two in width, half an inch from extremity. Canal not dilated. Walls not thickened (Willard).

Mütter Museum, College of Physicians of Philadelphia, A. D. Hall. V. A., cæcum and portions of ileum, perforation, peritonitis, death. When recently examined a perforating ulcer of the appendix was found, through which a grooved director could be passed,

communicating freely with the peritoneal cavity. There are two perforations, one, 2.5 centimetres from the caput coli, the muscular coating of the appendix appeared to have been destroyed by ulcerations, and then the peritoneal coat had given way in three small openings about 2 millimetres in line. These were arranged in a triangular manner. The second was a solitary perforation, 4 centimetres from the end of the appendix. Although thick patches of lymph had been thrown out, no attempts to limit the effusion of foreign material by lymph barriers was discoverable. There was nothing to show that any foreign body or concretion or impaction had been the origin of the lesion. Fluid pus was found in the interspace between liver and stomach, and about six ounces of turbid serum were in pelvic cavity. The intestines were glued together.

Mrs. C., aged twenty-five years, mother of two children, youngest four months old. Death on fifth day of idiopathic peritonitis, with characteristic symptoms.

Catalogue of Mütter Museum, College of Physicians, E. Hartshorne. Appendix, gangrene and perforations. Recently observed the appendix was inflamed and greatly enlarged, and intimately adherent to surrounding parts; was distended to a sac 5 centimetres long and two centimetres broad, and communicated by a small opening with the cavity of head of colon; walls thickened, infiltrated with dark blood and serum; its peritoneal coat highly injected and covered with exudation, and the mucous lining showing traces of extensive inflammation, which had run into a superficial gangrene. The latter had produced a honeycombed appearance of the inner surface, and had covered it with a dark greenish, pulpy, and extremely fetid matter. On its side, about two-thirds of the distance from the cæcal extremity, an ulcerated perforation, some 6 lines in length, and 3 lines in width, was found, from which fluid fecal and other matter had been flowing in small quantities. Immediately behind this opening, and encased by the appendix, a peculiar, moderately hard concretion, of the shape and color of an elongated olive

stone, presented itself, having been apparently moulded by the cavity by which it was contained. This was in layers, and was probably hardened fecal evcrement which had accumulated by slow oozing of the fluid contents of the large intestine through the small orifice of the distended appendix. No other evidence of morbid action in abdominal cavity, except congestion and œdema of ovaries and fimbriated tubes. Death on the fifth day from peritonitis.

A PHENOMENAL FEVER CASE.

BY WILLIAM R. D. BLACKWOOD, M. D.

THE subject of this report was a young lady nine years of age, of very slender build, pale complexion, and a highly developed nervous temperament. She ordinarily had a capricious appetite, and disliked butter, fat, and milk so much that she had to take cod-liver oil and glycerine in the winter months. She inherits this peculiarity from her mother, to whom butter is almost a poison. Her appetite for sugar and mustard was good; the latter she would, if permitted, eat on bread as others would eat butter or preserves. She also liked salads with vinegar, and acids generally. She was always at the head of her classes at school, and learned her lessons without study at home. A tendency to subacute chronic gastritis existed for five or six years, and she often complained of pain during or after meals.

THE HISTORY BY DR. BLACKWOOD.

Miss H. D. B. was indisposed from about the fourth of August, and took to bed on the eleventh. At first she was thought to have a bilious attack, and was given a little calomel and citrate of magnesia. This did no good, and by the 14th her temperature went up to 106.4° . It was not recorded before this time, but it has been watched closely since then. Ordinary febrifuges, such as aconite, nitre, acetate of ammonia, etc., did not act; her skin was perfectly dry throughout, until September 20th, when she had a drenching perspiration. What follows is from daily notes.

Fearing the effect of an almost continuous temperature of 105° , it going

down little more than half a degree at any time, I prescribed seven grain doses of antipyrin every three hours on August 16th, and this not acting on the 18th it was increased to fifteen grains, with the effect of bringing the rate down to 103.5° for half an hour only; but toward tea-time of that day she showed evident signs of collapse, blue extremities, cold feet, and slowed respiration. Stimulants removed these threatening symptoms in an hour or so. *Her fever, all except the half hour noted, remained at 105° !* Ice-water sponging had all this time been used freely, or water, bay rum, and vinegar over the entire person. On the 19th, antifebrin in five grain doses was given with the result of a rise in the temperature during the day to 105.5° , and during the night of that date the dose was increased to ten grains every three hours. Under this the rate remained close to 105° , as it sometimes rose a fifth or fell a like amount, and her stomach became much disturbed; vomiting set in. It was discontinued, and her vomiting ceased. This was my first and only experience with antipyrin and antifebrin.

Dr. O'Hara saw her on August 20th, and she then presented, so far as pressure indicated, symptoms of colitis over the whole length of the large intestine. She had very little diarrhœa, and the stools were mainly normal in color, and not thin. A little mercury and chalk was ordered for a day or two, but no change took place for the better. Her pulse varied from 112 to 120 (and this was its rate throughout), but the respiration was nearly double her normal rate and very shallow; no cough and very slight râles at the back. Febrifuges of about the former nature were resumed on the 22d, and muriate of ammonia added to the evaporating solution. The temperature varied only a quarter or one-half a degree steadily till September 4th, when, Dr. O'Hara being out of town, Dr. Frank Woodbury saw her, and he united with Dr. O'Hara and myself in the treatment of the case. To the fever mixture was then added spirits of chloroform, and an ice-cap was worn continuously. The abdomen was now tympanitic, and a single *tache-rouge* was detected on the

back, at the lower border of the right ribs. This was first observed in the fourth week, it will be noted, and nothing of the kind appeared sooner. No sudamina. Five drops of turpentine were given every four hours, and brandy alternated with the dose. The tympanites disappeared in twenty-six hours, and the turpentine, as it nauseated her, was discontinued. Thermometer now 105° from 10 A. M. till 4 next morning. Between 4 and 10 A. M. it fell under thirty grains of quinine, by suppository, to 103.5° . As her diet was insufficient to keep up her strength under the destruction of tissue by the temperature, I gave her, on the 6th, thirty grains of quinine sulphate during the day in compressed pill form. For two hours the thermometer in the evening was down to 103° . The quinine kept the fever in the early morning down for three days, when the stomach again rebelled, and suppositories were substituted of muriate of quinine with aqueous extract of opium—forty-eight grains daily of quinine being thus used. Less would not control the fever for even one hour, and this course was continued until the evening of September 13th. I lessened the dose to ten grains next day, and by midnight the height was 105.5° again. From this to the night of the 17th she had forty grains daily, and the temperature now reached 103° at nine P. M., and then going down to 101° by daylight, at which it stayed till three P. M., when it began rising.

On September 18th, Dr. Henry H. Smith saw her, and as she looked pretty well he considered her convalescent. He suggested a little digitalis with the opium. I may say here that she never showed any emaciation of the face, any pinched expression of countenance, any dry, brown, or glazed tongue. Her tongue was occasionally a little white in the middle, but always moist. No sordes appeared at any time, and she never asked for water until after the perspiration on the 20th of September. She drank only a teaspoonful or so after any medicine, and she took little liquid, except small quantities of beef-essence, soup, orange-juice or milk; but she excreted urine plentifully. On the 22d, her morning temperature was normal, but it went up to 101.5° in the

afternoon, keeping thus till the 27th, when it dropped to 99.5° in the afternoon.

From this on she gradually improved in appetite and strength, and she is now, October 1st, sitting up dressed for half the day. During the whole illness her voice was strong, seldom tremulous, and she lay awake all day. She slept well every night without anodynes, her hand trembled little at any time, the stools were not typhoid dejecta, and the urine was perfectly normal. She had a little nose-bleed a few times; but she often has that in health. There was a few times some membranous discharge from the bowels, slightly tinged with blood; no fever from sepsis could be detected any time, but that reflex irritative fever prevailed (possibly from unhealed ulcer of the bowel) was evident. On the day after Professor Smith's visit I gave her a pill of silver-nitrate with opium four times daily, and kept this up till the 26th. This may have stimulated cicatrization of the ulcers, if such were present. From this she improved rapidly, and she has since been free from any pain.

REMARKS BY DR. M. O'HARA.

My view of the case is substantially that set forth by Dr. Blackwood. The attack at first was apparently one of portal congestion, leaning toward dysentery. The continued high temperature may have been due to unhealed ulcers, causing reflex irritation, or there may have been some obscure disturbance of the brain heat-centres. In such a delicate child the condition was alarming under such deficient alimentation. The only real febrifuges appeared to be alcohol and quinine. For two days I felt grave doubt of recovery, although there did not seem to be any toxic trouble, at least from sepsis.

The worst two cases lately in my charge were those where very high fever existed for two weeks, but then convalescence was rapid, and almost without treatment, except Nature's firing process, as the parents refused absolutely to give the children repulsive medicine, and still Nature managed the cases perfectly well. Sometimes the fever does not seem to burn

up the poison causing disease. In old times we had alarm from chimneys taking fire, but the soot was gotten rid of thus and no harm was done. So in many fevers. We don't know what fever really is as yet, and we ought to be careful with such drugs as antipyrene and antifebrin. They are, of course, valuable, but require discriminating judgment in what individual case to use them.

In three cases of clergymen under my care at Atlantic City, where the cause, which was the same in each and started at the same time, was believed to have been eating oysters, all were typhoid in appearance; yet one recovered in a day or two, having only a little castor oil; another went nineteen days with slight rise in temperature and towards the close alarming collapse and copious sweats, leaving him weak for twenty days more. The third was sick for thirty-five days, had continued, but not alarming high temperature, yet both the latter got well finally about the same time. Atypical forms are frequent, and many cases considered typhoid are really not such, their true nature being unknown.

The thermometer tells us the disturbance of the mercury by the fever, but it does not measure the quality or quantity of the heat, or reveal to us what is the exact nature of the disturbance in the human economy, just as we have tension and quantity in electricity. The most serious and fatal cases do not have the very high temperatures, but rather moderate temperatures. My experience enabled me, by exclusion as to all other causes, to assign this to the category of typhoid fever; but it seems strange to me how numerous have become the cases without well-defined pathognomic symptoms. Our adherence to the word "typhoid" shows we do not know all about it, yet enteric fever scarcely gives us a better idea of what is going on in this class of diseases. I believe there are many cases where the patients get well, never having taken to their beds. There must be variation in the seed of typhoid fever or some varying character in the human soil in which it is planted to give us so many different forms of typhoid fever. It is

constantly mistaken for malarial fever, and I think it sometimes exceedingly difficult to recognize on account of the absence of pathognomic symptoms. I have seen one case, a walking case, where it was not even suspected, in which latent ulceration of bowels went on and the patient died from hemorrhage. A post-mortem diagnosis was made in this case.

NOTE BY DR. WOODBURY.

The general impression which was left upon my mind, and which is confirmed by reading the notes carefully taken by Dr. Blackwood, is that the case beyond all doubt was a case of continued fever. But to the question, "Was it a case of typhoid fever?" I cannot give such unqualified assent, although the prolonged fever, early epistaxis, profound prostration, dislike for food, scanty rose-colored eruption, and troublesome colitis, with slow recovery, seem to admit this explanation better than any other; yet it was very different from the ordinary type of the disease. Despite the constant elevation of temperature, which had been observed for weeks prior to the time that I saw the little patient, she did not have the brilliant eye and flushed cheek, the fever-breath and coated tongue, nor the dry, harsh skin of developed typhoid; and, indeed, there were also absent two very important and characteristic signs: the pea-soup dejections and enlarged spleen. She did have a few dry, bronchial rales upon which Prof. DaCosta lays much stress as one of the important early signs of typhoid fever. I found her weak and thin, it is true, but intelligent, patient and fully conscious of all that was going on around her. At this time her temperature had been brought down to one hundred and three, or a fraction over, and she appeared as if ready to enter upon convalescence, provided that sufficient nourishment could be administered and assimilated. For a time she improved decidedly under daily inunctions of cocoa-nut oil and massage, with small quantities of yolk of egg and brandy given frequently. Subsequently, she was able to take rice-water and mutton-broth, and was

apparently doing so well that I considered her convalescence assured; and as I was called away from the city to attend the International Medical Congress, I did not see her again for nearly a month. When I returned she was sitting up, having had a very tedious recovery. I learned from Dr. Blackwood that, after I had stopped meeting with Dr. O'Hara and himself, the temperature again rose to 104° , and remained so for several days. For this aberration of temperature, there was absolutely nothing to account, unless the persistent tenderness, swelling and induration of the abdomen, in conjunction with mucous, slightly bloody discharges from the bowels would suggest the influence of irritable, unhealed ulcers in the lower part of the small intestines, or in the colon, a view in which Drs. O'Hara and Blackwood coincided. There was, at no time, any symptom of pneumonia, nor of cerebral disorder, so far as I could learn. The patient was most assiduously attended by her mother and father, and it is owing to the unusual care that she received that she strove successfully against the disease. She was also fortunate in descending from a stock distinguished by superior vitality and energy, and in which the Scotch element did not dispose her to readily yield to the mandates of disease or of any thing else.

RESUMED BY DR. BLACKWOOD.

Since writing the above, the patient had a relapse (on Oct. 6th), the fever running up from sub-normal in the early morning to 104° at 2 P. M. and this point being held till 6 P. M., after which it slowly declined till before daylight, when it varied from 97° to 98° . The relapse lasted six days. No cause was known for the condition. The abdomen a few days *after* recovering from the relapse became tumid and dull on percussion all over. There was probably some effusion, as the dulness was more pronounced when standing. The circumference was increased three inches over the normal size for a week, and then it gradually disappeared. The urine was all right throughout, and the stools, also, both in character and amount. Nothing was prescribed

other than two grains of quinine before meals, and this was maintained to November 1st, when she was able to ride out. She has been almost altogether free from gastralgia since, and her appetite is ferocious. She is stouter now than before her illness, and despite the fever her hair, which was usually thick and long, comes out but little, and desquamation was unimportant.

There may be cases like this. I never have seen one before. I have treated typhoid in army and civil hospitals, and in private practice to my full share, and I have seen high temperature, but never a continued fever of this grade. The rate kept up within a fraction of 105° for over five weeks steadily, day and night—any drop being less than a degree, except for less than an hour on one occasion. For over fifty days her fever was never below 103° in the afternoon, and hardly less at any hour during the rest of the day or night. Five guaranteed thermometers were used, and mine are accurate, I know. There is no mistake about the data; they were carefully noted day by day.

Typhoid in India is said to be followed frequently by relapses of persistent fever, quite high, though morning temperature may be sub-normal.

Either we are mistaken about the danger of continued high temperature (and 103° – 105° is high when held for a month) and the fatty degeneration thus induced cannot be common, or else this child is a phenomenon in withstanding fever. If this was an atypical typhoid, it is worth reporting; if it was not, what was it? Wasn't it phenomenal?

246 North Twentieth Street, Phila.

REPORT OF THE COMMITTEE ON PROF. KOROSI'S PAPER ON VACCINATION STATISTICS.

Presented to the First Section in the Ninth International Medical Congress, Washington, September 6th, 1887.

IN connection with his paper on vaccination statistics, Doctor Korosi of Buda-Pesth presented a number of documents, referring to the well known and much quoted statistics which were published fifteen years ago by Doctor Keller, the chief physician of

the Austrian State Railway. These statistics were amongst the first which dealt with the influence of age upon small-pox mortality. The most astonishing result of these statistics was that, by omitting children under one year of age both from the vaccinated and from the non-vaccinated, no influence of vaccination was to be observed, as there died amongst the vaccinated people $13\frac{3}{4}$ per cent. and amongst the non-vaccinated $13\frac{1}{4}$ per cent. But for some ages, there was to be found even a greater mortality amongst the vaccinated. For instance, the deaths between ages from 4-5 years among the vaccinated were 20 per cent., but from the non-vaccinated only 15 per cent.; from 5-10 years among the vaccinated 19 per cent., but from among the non-vaccinated only 9 per cent., so that these data appeared to prove not only the uselessness of vaccination, but even the danger of it.

Let us add that these statistics, especially in consequence of the well known discipline of the service of the said railroad company as also in consequence of the very careful arrangement of the schedules, were much praised.

The anti-vaccinators, especially Lounser of Vienna, and Professor Vogt of Bern, Switzerland, declared them to be the most carefully prepared and the most trustworthy of vaccination statistics.

These data were also quoted everywhere, when vaccination was to be attacked; and even in the German Parliament, the leader of the opposition, Reichensperger, quoted these statistics in order to combat the German vaccination act of 1874. These statistics have thus done, and still do, much harm to the cause of vaccination. Director Korosi, having undertaken a critical review of all the statistical methods which were used up to the present time in defence or in attack of the preventive power of vaccination, had also resolved to examine some of the most important anti-vaccinational papers, step by step, to pursue each quoted statistical fact back to its original source, and to ascertain in this manner its reliability. Amongst these papers was included that of Keller. When Korosi undertook this trouble-

some work of investigation, which occupied him for some months, and necessitated an extended correspondence and compelled him even to make journeys, he had no suspicion that these statistics had been falsified, and he expected that he would be obliged to acknowledge their exactness, exceptional as they were. But the result of this investigation terminated in a quite unlooked-for development.

Korosi having addressed himself first to Dr. Keller to allow him to come to Vienna to revise the original schedules, found that Dr. Keller had died not long before. He went, however, to Vienna to look into the matter. Here he learned from the successor of Dr. Keller, Dr. Neumann, that Keller had retired from office two years before his death, and that he had taken with him all these official papers. Keller having died in the city of Klosterneuburg, without family, Korosi sought for the documents, but in vain, as all the property had been delivered to kinsmen residing at Prague. Korosi addressed himself now to these, but learned that no statistical papers had been found among his effects. It is then probable that Keller had himself disposed of these important documents.

The correctness of these statements has been verified by us by examining the letters of Doctor Neumann, of the Burgomaster of Klosterneuburg, and of Professor Erben at Prague, the latter having made inquiries of the heirs of Keller.

Director Korosi having thus far been baffled in his search, addressed letters to all the railway physicians who had furnished, in 1872-3, statistics to their chief at Vienna, asking them if they had duplicates of their statistical reports. Out of 19 physicians still living 8 were able to send duplicates, and Director Korosi was thus enabled to reconstruct the railway statistics of 549 cases of those reported in Keller's brochure.

Before presenting to the section the results of our labor, we desire to say some words as to the accuracy of the original reports. Far from being perfectly accurate, it must be admitted that they are the very opposite, and that in the following respects:

1. The alleged superiority of the Keller's statistics was ascribed to the circumstance that, according to the circular order No. 30,593, 1872, of the Vienna office, the physicians had to note, during the epidemics of 1872-3 in each case of small-pox, not only whether the patient had been vaccinated or not, but also whether he had been re-vaccinated, if he had small-pox before, or if vaccination could not be ascertained, and, besides all this, the age, and this with great exactness. Thus, for instance, in case of sucklings under one year, the number of months. Now we have had in our possession this circular No. 30,593, and have found that its date is toward the end of the year, that is the 19th of November, 1872. How could these physicians have furnished all the required statistical data concerning the persons who had been treated during the time before this ordinance had been published, especially when we take into consideration that the working people on the railway represent a very fluctuating population? The required data could have been possible only if the register of patients had contained columns for indicating these data. But we have had in our hands a duplicate of these older registers in the handwriting of Doctor Borbely, chief physician of the Hungarian lines of the said railroad company, and we can affirm that they contain no column for these data, and that, consequently, this extract of the register of Pesth, containing all the cases of small-pox, which had occurred there in these two years, shows that in not a single one of these cases had the fact of vaccination, re-vaccination, etc., been noted.

2. The fact that the physicians knew very well that the chief medical officer was an anti-vaccinationist renders it not unreasonable to infer that they acted under pressure. We have also seen the letter of one of these physicians, who confesses that, "*inter nos sit dictum*, the data were prepared in conformity to the taste of their chief, whom he knew to be opposed to vaccination." We can thus state that the much-praised source of the Keller reports has been found a very impure one.

But even these inexact statistics furnish a proof in favor of vaccination. The data reconstructed by Director Korosi lead to the following results:

Of the vaccinated, died	- - -	8.82 per cent.
" not vaccinated, died	- - -	19.23 "

That is more than double the number of the former.

From the paper read by Korosi, in the I. Section, we learn that in 19 Hungarian hospitals, where the registration was exact, eight times as many of the not vaccinated died as of the vaccinated; but the incorrectness of these railway statistics causes this advantage of the vaccinated to be reduced one half, whilst under the hands of Doctor Keller this advantage was reduced to zero. How was this accomplished? We beg to tender you the explanation of this fact: Keller had actually altered the statistics of his physicians, which he should have only compiled.

Let us give only one instance: The railway company is proprietor of a great mining colony, called Steyesdorf, in the south-east of Hungary. The physician of this colony, Doctor Pichler, sent to Director Korosi a duplicate of his statistics, according to which there had died out of the vaccinated 3.8 per cent., but, out of the non-vaccinated, 34 per cent.; that is nine times as many.

In Doctor Keller's paper we find it reported thus: There died amongst the vaccinated, 49 per cent.; amongst the non-vaccinated, 20½ per cent.; so that the difference is simply quadruple. This result was produced by raising the number of the deaths in the column of the vaccinated, and by changing in the same direction the number of the patients. For Doctor Pichler reported that amongst 38 not vaccinated, 13 died—34 per cent.—and Doctor Keller changed this in the following manner: Amongst 68 not vaccinated, 13 died—20½ per cent.

From the correspondence submitted to us we find that Korosi informed Dr. Pichler of the great discrepancy between these two statistics; he called his attention to the fact that, in the trial, Keller *versus* Jenner, Keller ought to be impeached for falsification of statistics; that he (Doctor P.) would

be in the witness box before the tribunal of an International Congress; that he should, therefore, revise his registers once more, and perhaps he would find some mistakes. We have seen the answer of Doctor Pichler dated from Steyesdorf the 4th March, 1887, in which he says that he did not know anything about the paper of Keller; and declared that his own data are true, and accord entirely with his registers of sick and dead. Besides this, it may be mentioned that Doctor Pichler also had sent in 1873 his statistical reports to the country authority at Lugos, so that the possibility of errors is entirely excluded from his own data.

But your committee have also had in hand the answers of all the other physicians of the railway company, in all eight letters. We are convinced that in each of these, *without exception*, that Dr. Keller had changed the genuine data, and that always in such a manner as to increase the mortality of the vaccinated, and to diminish that of the non-vaccinated. We further aver that in some cases, *e. g.* as in that of Olmutz, where all the patients had been vaccinated and all recovered, Dr. Keller simply omitted all mention of the report and of the facts. For we have sought in vain for the statistics of Olmutz in Keller's brochure.

In conclusion, we are forced to declare that the statistics of Doctor Keller have been found by us to be false; that these statistics are an unpardonable effort to mislead public and scientific opinion, and that henceforth no weight should be attached to them, having been proved by us to be entirely incorrect.

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A. B. ARNOLD, M. D.,

President of Section of General Medicine.

Extract from the Minutes.

WM. F. WAUGH, A. M., M. D.,

Secretary of Section I.

A CASE OF EXTRA-UTERINE (EPI-OVARIAN) PREGNANCY; DELIVERY OF THE FŒTUS THROUGH AN ULCERATED OPENING IN THE ABDOMINAL WALL; DEATH; AUTOPSY.

(Clinical Report from Maryland Woman's Hospital, Baltimore.)

Service of the late PROF. A. F. ERICH, M. D.,
of the College of Physicians and Surgeons,
Baltimore.

MARY E. CANNON, colored, aged 35 years, widowed since February 12th, 1880, was admitted into the *Maryland Woman's Hospital*, April 4th, 1881, and gave the following history:

Her menses first appeared when she was fifteen years of age, and continued normal in amount, duration and interval until her marriage, in her 25th year. She has led an active life, her occupation being that of washer and ironer. She has had seven children, two being still-born at full term. She had no abortions. Her health usually had been good.

In the latter part of February, 1880, she noticed that her abdomen was growing larger, and in the course of a month or two later felt "tapping-movements" in the left side, which she attributed to the movements of a fetus. Six months later she had violent colicky pains, and a hemorrhage from the uterus. The pains continued severe at intervals, "sometimes drawing her almost double," as she expressed it, until the latter part of October, 1880, when a brownish fluid began to ooze from three small openings around the umbilicus. The apertures were arranged in a triangle around the umbilicus, and were about the size of small shot. These openings gradually enlarged, and the structures of the anterior abdominal wall, for a space of about two inches in diameter, finally sloughed out, leaving an opening through which a portion of the fetus could be seen. The discharge continued, and rapidly became very offensive, the odor at the time of her admission into the hospital being almost insupportable to the attendants.

The following notes were made of her condition on admission:

The patient is moderately emaciated; temperature, 98.8° ; pulse, 98; respiration, 20. Appetite and digestion moderately good, with a tendency to constipation. She has a moderately enlarged abdomen, with the physical signs of an irregular, solid tumor. The site of the umbilicus is occupied by an ulcerated opening about two inches in diameter, through which presents a portion of the fetus, believed to be the knee. A very offensive discharge issues from the ulcerated opening, which, as stated above, has existed since last October.

On April 5th, the day after her admission, she was etherized, and, by careful manipulation, a full-grown, but considerably macerated and partially-decomposed fetus was removed piecemeal, without further enlarging the ulcerated opening in the abdominal wall. The presenting part was found to be the hips, instead of the knee, as at first supposed. The scalp was found to be firmly adherent to the bottom of the sac, and was carefully removed. No trace of placenta could be discovered.

After removing all the contents of the sac which could be detached from its walls with safety, the cavity was thoroughly washed out with carbolized water (one per cent.), and then packed with carbolized cotton, thickly dusted over with boracic acid to prolong the antiseptic effect, and a bandage applied over all. She was then put to bed, and the benzoate of sodium mixture (R: Acid benzoic, \mathfrak{zj} ; sodii biborat, \mathfrak{z} iss, ad. aquæ, $\mathfrak{f}\mathfrak{z}$ vj) given in teaspoonful doses every hour.

On the 6th, 7th, 8th and 9th, she was easy, with a temperature varying from normal to 99.2° . During the night of the 9th, she awoke in a profuse perspiration, but soon went to sleep again. On the morning of the 10th the temperature was 98.8° , and at 4.30 P. M. it had risen to 100.8° . The membranes had slowly come away in flakes during the preceding four days, and now disclosed a spongy tumor—the disorganized placenta—attached to the left side of the sac. This was removed without causing any hemorrhage. The attachment was not firm, and the placental site remained as a rough, somewhat villous surface.

The cavity had been thrice daily washed out with the carbolized water, and was kept packed with carbolized cotton. The latter was now thickly dusted with boric acid crystals to render the antiseptic effect more permanent. On the morning of the 11th the temperature of the patient was normal. From this date until the morning of the 15th, inclusive, the temperature varied between 98.8° and 98.2° , standing at the lower figure on the latter date. Owing to extra work at the hospital on this day, the afternoon dressing of the sac was omitted, and at 11 P. M. the resident physician was surprised and alarmed at finding the temperature 104.2° . The cavity was at once thoroughly washed out with a two per cent. solution of carbolic acid, packed with borated cotton and twenty grains of cinchonidia administered. In half an hour the temperature had fallen to 103° , and at 12.30 A. M. of 16th to 102° . At 10 A. M. of 16th the temperature was 103° . The cinchonidia was repeated, and the sac washed out and packed with the borated cotton every two hours.

On the 17th, the temperature ranged from 101.8° to 104.4° . The stomach had become irritable, and would not retain food or stimulants. During the 18th she rapidly sank, and at 8 P. M. died.

The following is the report of the post-mortem examination, which was made by Professor Rohé three hours after the patient's death:

"The body was moderately well nourished; no rigor mortis.

"An opening was found in the linea alba involving the umbilicus, and extending two inches toward the pubes.

"The skin and subcutaneous connective tissue were dissected off from the fascia and turned back on either side, isolating the opening above mentioned. The subcutaneous layer of fat was well developed, being fully half an inch in thickness. There was inflammatory infiltration of the subcutaneous connective tissue. In the neighborhood of the opening before mentioned, the epidermis could be stripped off in flakes as if it had been macerated in a mild caustic solution.

"The opening in the abdominal wall was found to end in a sac capable of holding about three pints. On entering the abdominal cavity, the omentum, right lobe of the liver, gall bladder and small intestines were found firmly adherent to the sac. The adhesions were so firm that the lower border of the liver was divided with the knife in order to avoid rupturing the sac. In detaching the small intestines, the sac was accidentally opened in spite of the care used.

"At the lower portion of the sac the adhesions were not quite so firm as at the upper. The appendix vermiformis was adherent to the right side of the sac. The rectum was firmly adherent, with considerable vascularization to the posterior surface of the lower portion of the uterus and the vagina.

"The heart and lungs were normal. The kidneys were not examined.

"The sac was removed with the ovaries, tubes, uterus and vagina, and on closer examination exhibits the following peculiarities: It is adherent to the front of the uterus, which is slightly enlarged. The left ovary is normal in size and appearance, and shows the remains of a corpus luteum.

"The right ovary is smaller than normal, closely attached to the sac and displaced upwards; it also contains the remains of a corpus luteum. Both tubes can be traced outward from the uterus, and are apparently healthy. The interior of the sac shows on the left side an annular, rough, villous surface, probably the placental site. On the right side the cavity is irregularly smooth, like an abscess wall.

"From the close adhesion of the sac to the left ovary, and the slightly diminished size of that organ, the case seems to me to be properly described by the designation, *Epi-ovarian*, (ovarian, of Schreder), the ovum having been fecundated on the surface of the ovary and developed in that situation. The thick sack is evidently, principally composed of fibrinous exudation, which has undergone organization and formed a pretty stout protective covering for the fœtus."

[These notes, prepared by the late Professor Erich, and found among his papers, are kindly furnished by the Associate Editor, whose careful report of the autopsy adds interest to this peculiar and interesting case.—Eds. P. M. T.]

CLINICAL NOTES.

IN CASES OF BLEPHARITIS, Prof. Keyser has excellent results from his "po-made anti-blepharitic:

Oleopalmitate of lead.....	20 parts.
Almond oil.....	10 "
Simple cerate.....	5 "
Balsam of Peru.....	1 "
Liquid tar	$\frac{1}{2}$ "

Spread a cloth with this and allow it to lie on the inflamed surface each night.

ACNE.—Prof. Shoemaker prescribed for a case of seborrhœa sicca, accompanied by acne, conditions frequently seen in youth:

R Calcis sulphuratæ.....	gr. $\frac{1}{2}$
Ext. calami	gr. ij M.

Make into a pill. Take three times a day.

Apply locally:

R Extracti hamameli. dis. fld..	f℥j
Hydrargyri chloridi cor.....	gr. viij
Aquæ.....	f℥iv M.

IN STRICTURES that resist dilating by ordinary means, Prof. Garretson frequently succeeds in passing the bougie by first injecting some bland oil into the urethra.

LATE SYPHILIS AFFECTING THE NERVOUS SYSTEM.—An interesting case was exhibited at Prof. Woodbury's clinic, January 9. Three weeks before, the same patient, a man of fifty years, had applied for relief. He had paresis of the legs, pains in back of head, was unable to pass water without a catheter and had impairment of memory. For two years and a half he had been making the rounds of the hospitals, but with no success. Specific treatment was given him of gr. $\frac{1}{2}$ hydrarg. bichlor., and gr. iv of iodide of potassium, ter die. In four days the retention of urine ceased, and on the 9th of January the patient waxed eloquent for joy, saying that the various pains had left, that his memory had come back, and that his strength had returned to such a degree he was shortly going to work.

IN CASES OF HYPERIDROSIS, advise constant use of water on the spots, with or without naphthol, tar, soap, soda, or corrosive sublimate. Dust on the surface salicylic acid and bismuth, equal parts, or naphthol, gr. xx, boric acid, ℥ss. If the powder cakes, remove with sweet oil. Do not cover too warmly.—PROF. SHOEMAKER.

WHEN rheumatism seems to have finally settled in a certain joint, try this: Wrap around the affected part several thicknesses of flannel, first soaking them in cod-liver oil. Encase this in oiled silk; and each day remove the silk and pour on a teaspoonful of the oil.—PROF. WAUGH.

PROF. GOODMAN exhibited at his clinic, at the Medico-Chirurgical College, a patient on whom he had operated at Will's Eye Hospital, for a malignant growth in the orbit and the antrum. The contents of both cavities were removed, and the exposed surfaces seared with a hot iron. Dr. Ziegler, the house physician at Will's, undertook to fill the orbit by means of "sponge grafting," and when the patient was exhibited, the process was well under way, the orbit being half filled with new tissue. The part yet unfilled Dr. Ziegler keeps constantly plugged with bichloride gauze, soaked in boro-glyceride.

PROF. PANCOAST showed at his clinic, a few weeks ago, a case of restored hip-joint. In this case, that of a young woman, the femur had been dislocated into the thyroid foramen, and had there become ankylosed. The femur was much everted and displaced laterally, causing great deformity. Last spring Prof. Pancoast dislodged the neck of the femur, put the bone in place, and the operation has resulted in an excellent joint, with the leg in proper position.

IN THE WOMAN'S HOSPITAL, acute rheumatism set in as a complication after removal of suppurating cervical glands. The case was treated by sodium salicylate and antipyrin internally, with flying blisters applied to the affected joints. The attack was very severe, but the patient made a good recovery, without any heart complications or sequelæ.

ECTHYMA.—For a case of ecthyma, Prof. Shoemaker prescribed:

R Camphoræ.....gr. xx
Ung. plumbi subacetat.....
Zinci oxidi benzoat.....ââ 3 ss M.
Sig.—Apply locally.

R Syr. phos. comp.....f 3 iij
Syrupi ferri iodidi.....f 3 ij
Aloini.....gr. ij M.
Sig.—3ij four times a day.

VENEREAL WARTS.—Dr. McConnell makes use of the following application for venereal warts on the *penis*, when the patient will not submit to operation:

R Pulv. sabinæ.....
Hydrarg. chloridi mitis....ââ 3 ss
Bismuthi subnitrat.....3j M.
Sig.—Apply locally.

FOR FÆTID FEET.—Since the offensive odor from certain persons' feet has been shown to be of microbic origin, Prof. Gerhard advises several applications of bichloride of mercury, 50000 or 100000.

TONIC FOR STRUMOUS PATIENTS.—Professor Garretson says that he has frequently found the following to be an excellent tonic:

R Hydrargyri chloridi corrosivi .gr. ij
Tincture gentianæ comp....f 3 iij M.
S.—Teaspoonful ter die.

PHILADELPHIA HOSPITAL.—In ligaturing the broad ligament for the removal of the Fallopian tubes and the ovaries, Dr. Parish claims that Tait's Staffordshire knot is unreliable, on account of its tendency to slip, and recommends instead the double ligature passed through the middle of the broad ligament and each half tied separately.

GERMAN HOSPITAL.—Dr. Vogler presented a patient who suffered with paralysis of the left side, due to rupture of a blood-vessel in the brain. Patient was put on iodide of potassium and the fluid extract of hyoscyamus, and externally, wet cups along the spine and electricity. He has recovered motion of both limbs, arm and leg nearly normal.

Dr. Vogler presented a case of rheumatic arthritis; patient has suffered for two years with swelling and pain of upper and lower extremities, without being able to work.

He put her on large doses of salicylic acid for some days; externally, leeches, and leadwater and laudanum to allay the inflammation.

He speaks highly of an ointment composed of powdered camphor, watery extract of opium, belladonna, simple cerate, and zinc ointment. The sulphur-baths of this country or Baden-Baden and Wiesbaden of Germany,

and a dry and warm climate are advised in this disease.

Dr. Deaver presented a case of shoulder-joint amputation (after Larrey's method), which he performed some weeks ago (for injuries patient sustained), with very good results.

In speaking of injuries with loss of blood, Dr. Deaver advocates hypodermic injections of alkaline solutions; if that should not be sufficient, he recommends transfusion of blood. For stimulants, he recommends the hypodermic injection of ether as the best; after that, whiskey and digitalis. Stimulants by the stomach should be given after the stomach is quiet, and they should be given in small doses at short intervals with hot drinks.

In amputations, Dr. Deaver uses the catgut for the ligaturing of the blood-vessels, hot water to stop capillary hemorrhage, and, as an aseptic, bichloride of mercury solution, 1 in 2000, to wash the parts thoroughly, and then an antiseptic dressing.

AS SEMINAL EMISSIONS usually occur after the first sleep, and are caused by the irritation of a full bladder, Dr. Sudduth gathers from this that it is well to advise patients of this character to empty the bladder immediately upon awakening in the morning, generally about 4 A. M.

TRANSLATIONS.

METHYL CHLORIDE is a new local agent for treating hyper-pyrexia. In using this agent Dr. H. Bailly, of Chambly, does not permit it to act directly on the cutaneous surface. He prefers a stream from a syphon to deliver it in the centre of a tampon of cotton whose edges are of silk. This cold producing tampon can thus be kept at a temperature of from 15°-55° below zero.

In passing this tampon over the hand a sense of cold is experienced in a few seconds; then, the sensibility of the part is obtunded; it next becomes pale, and shortly afterwards hyperæmic; finally, complete anæsthesia is produced. If continued, the surface of the skin is colored brown, which persists several weeks. This point should not

be over-stepped, as vesication and necrosis may result. The application of this tampon is of value in some varieties of neuralgias, in rheumatism, pleurodynia, lumbago, migraine, tetanus, hydro-pneumothorax, etc. It is also serviceable in producing local anæsthesia for surgical operations.

ORIGIN AND CURE OF NEURALGIA.—Winternitz says that "The hypothesis that every neuralgia is based on a neuritis, an inflammation in any part of the peripheral or central nervous system, or in the course of the nerve distribution, has often been found a fallacy; and the supposed etiological results due to compression are also often wanting.

The types of pain in pure neuralgia are remittent and intermittent in character with intervals of entire freedom; the pain is lancinating; the cause must, therefore, be increasing and decreasing in its deleterious effect, ebbing and flowing; it should be sought for in the changes of assimilation and nourishment.

As Winternitz a few years ago pointed out, the muscular pain of rheumatism arises directly, or by a reflex rotate from the contraction of muscular vessels; the products of waste were carried off, and the neutralizing blood-flow decreased. The nerves in his opinion are affected in the same manner, as has been proven, the chemical reaction of nerves is altered in irritation.

This material (lactic acid) accumulates in the muscles, as well as in the nerves, irritating and producing neuralgia.

Every increase of blood-flow and pressure carries away a part of this deleterious material, or neutralizes it, decreasing the pain. This explains the origin of the remission and intermission of the same; it explains also the neuralgia of metal poisoning, and the result of therapy.

The indication consists in producing such a healthy and continuous flow of blood in the affected organs as to neutralize and carry away the accumulated irritant, promoting healthy assimilation, principally, by the use of electricity, massage and hydro-therapy.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JAN. 16, 1888.

EDITORIAL.

PHYSICIANS' ACCOUNTS.

PHYSICIANS are, as a rule, unnecessarily sensitive upon the subject of business; and the common remark that doctors are poor businessmen is considered rather as a compliment than otherwise. It does not follow, however, because a doctor may have poor business methods that he is *ipso facto* a better medical adviser, or that a good physician must necessarily be a poor business manager. On the contrary, from personal observation and an experience not limited to one locality, we can say that the most successful physicians are those who are most systematic in their work, and (although they may not parade the information) have excellent business ideas. We wish to avoid any invidious reflections, but our readers will be able to supply instances, especially from the ranks of our friends the specialists.

These remarks apply directly to the burning question of physicians' accounts. In the first place, in keeping the accounts the books should be neatly and accurately kept, so that in case of sickness or sudden death no unnecessary loss would accrue to the physician's family, which frequently requires all the money from the estate that it will yield. Moreover, in case of suit before a court, the accounts must be kept in plain legible style so that they can be understood by the average juryman. A certain definite amount should be charged for services rendered. The use of arbitrary characters and ciphers will seriously impair the

value of the book in evidence. A visit is not *per se* a proper subject for making a charge, whereas a "service rendered," "consultation," or "examination, physical, chemical or microscopical," or a "surgical operation" would be. These charges should be entered on the book on the day on which they are incurred, or immediately afterward, in order that it shall be held as a book of original entry. It is sometimes important to establish in court the date of service rendered. This can be done positively only when the entries in the day-book are promptly made.

With regard to sending out the accounts, this should be governed by the convenience of the physician and his patients. It is not unprofessional to require a cash honorarium from office patients and strangers, nor is the semi-annual account more professional than the quarterly or monthly one. There is no good reason why physicians should not require monthly or even weekly settlements with their patients, if they find it more to their interest than to wait for six months. We think, that if the rule were generally adopted by physicians, of sending out their accounts for short periods, it would be to their advantage. Small bills are more easy to pay than large ones and patients need to be taught that the money is due at the time the service is rendered.

There is a false delicacy sometimes manifested with regard to collections, and an indifference shown to accounts which is not always felt. Our friends of the legal profession could give us some very good advice (for a consideration) upon this point, although in some instances we could not follow exactly in their footsteps. The Code of Ethics has a word of caution for those who are above the necessity of earning money by the practice of medicine;

and the same warning should be directed to those who affect to be above the vulgar necessity of fees. The truth is that as a rule the practice of medicine is followed as a means of earning a livelihood. By the community it is considered an honorable vocation, and its followers will receive all the respect which they can command. A good way for a physician to secure the respect of others is to have a proper appreciation of himself; and to insist, politely but firmly, upon his rights, pre-eminent among which is the right to live. The means whereby he lives flow naturally from the physician's accounts. F. W.

SHOULD PHARMACY BE REGARDED AS A PROFESSION?

OUR recent editorial on the Relations of the Physician and the Pharmacist has evoked much comment, some favorable, some dissentient, and some which is clearly unjust or based upon misunderstanding of our argument. Among the latter we number a writer in the *Druggists' Journal* who accuses us, among other offences, of wholesale abuse of the pharmacists. This charge appears to be due to our statement that the standard of the pharmacist is commercial rather than professional.

Being somewhat curious to learn the opinion of pharmacists themselves upon this subject, we addressed the following question to a number of the leading druggists in the central part of this city: "Is Pharmacy, as at present practiced, a profession or a business? I do not want to know what it ought to be, what it is in theory, or in individual cases, but what it actually is at the present day." Among the answers received were the following: "One-tenth profession, nine-tenths business;" "They tell us at college that it is a profession, but it is a business;" "A

business, pure and simple;" "Two of the most distinguished representatives of the professional standard in this city were both forced out of business;" "Pharmacy owes its position to-day solely to those who have regarded it as a business." Scarcely any held to the strictly professional idea; while many unconsciously acknowledged the rule of the laws of commerce, by stating that they kept as near to the professional standard as the conditions of trade would permit.

In this discussion, nothing has been farther from our thought than abuse of the pharmacists. We hold this class in respect and cherish towards them feelings of amity. We must bear testimony to the knowledge and skill with which their work is almost universally done, and to their general trustworthiness. They have taught us valuable lessons as to compatibilities, and elegance in exhibition of our remedies. Dr. Mitchell, in his able communication which appeared in our last issue, has commented on us very fairly, by suggesting that the physician needs special preparation for dispensing as well as the druggist for prescribing.

But the special skill which a druggist may possess does not constitute pharmacy a profession. There are a few of the old pharmacies still left, where nothing is sold except things for the use of the sick; but they are too few to be considered representative of modern pharmacy. From ocular proof, we must still insist that the pharmacist as we know him is governed by the inexorable laws of trade, and no matter how much he may desire to escape from them, he cannot as long as he remains in business.

The difficulty is not met by the admission of pharmacists into the medical profession. While in some branches they are excellent students, the druggists rarely rise high in the ranks of

medicine. The reason is that they are unwilling to take up the rudiments with sufficient zeal and appreciation. It is with difficulty that they can be induced to dissect, or to enter the laboratories.

The remedy, as it appears to us personally, is to be found in a conjoined course of study, in which the student is taught medicine and pharmacy, and begins practice as a physician with his little pharmacy, and allows time to show which is his natural vocation. But as for compelling the druggist to dispense medicines only on prescriptions, or forbidding the physician's dispensing his own remedies, we are very decidedly of the opinion that they are alike impossible, under present conditions.

W. F. W.

SUICIDES NOT NECESSARILY INSANE.

AT the annual meeting of the Medical Jurisprudence Society, held on the 10th instant, Judge Wm. N. Ashman, in his annual address in retiring from the office of President of the Society, discussed the legal aspect of suicide. He concluded, after a careful review of the arguments advanced, and especially of the paper of Prof. Reese, read at a previous meeting, that suicide, from a medico-legal point of view, is not necessarily proof of insanity in the person committing it. With regard to the policy of the law now in force in some States, making attempted suicide a penal offence, by the nature of the case such laws are ineffective. As Judge Ashman aptly remarks, How could the fear of punishment affect the man who, driven to desperation by the woes he is already burdened with, seeks a speedy end to them by suicide?

Under certain circumstances in modern jurisprudence, the plea of insanity is offered and accepted as a legal fiction in order that a verdict may be rendered

in response to public sentiment rather than in accordance with the actual facts in the case. It is probable, therefore, that life-insurance companies will still be compelled to pay policies on the death of suicides, although no evidence of insanity be submitted beyond the mere act of self-destruction. The opinion of Judge Ashman, however, that suicide is not of itself sufficient evidence to prove the existence of insanity, seems in accordance with the view generally taken by medical men. If self-murder be incompatible with complete sanity, as some authorities declare, they should also state what proportion of persons in the community they would consider completely sane.

F. W.

THE *Pharmaceutical Era* has inaugurated a series of collective investigations which promise to be of much value. A query is published each month, the answers appearing in the next issue. Pharmacists and physicians are asked to furnish answers and to propose questions.

This species of investigation and intercommunication, by which the readers of a journal become members of a society, has always seemed to us a most excellent thing. In the first number of the present volume we published a letter on the Chautauqua System as applied to physicians, which we regret to say has not been taken up by our readers as we hoped.

IN THE DEATH OF WESLEY M. CARPENTER, M. D., which occurred on the 7th inst., in his 49th year, medical journalism sustained a severe loss. He had been connected with the *Medical Record* for fifteen years. An expert short-hand reporter, he was a well-known figure at the meetings of the leading Medical Societies in this country. He was Clinical Professor of Medicine in the Medical Department of the University of New York.

LETTERS FROM SPECIAL CORRESPONDENTS.

PARIS LETTER.

THE RADICAL CURE OF CONGENITAL HERNIA—EPIDEMIC OF LEAD POISONING, CAUSED BY THE USE OF ADULTERATED FLOUR—MYROBALANUS—HYDROFLUORIC ACID VAPOR IN PHTHISIS—PHOSPHATE OF COPPER IN PHTHISIS.

THE Radical Cure of Congenital Hernia.—For a number of weeks past the *Société de Chirurgie* has been considering this subject, and as most of the Paris surgeons have given their opinions in regard to this operation, we communicate to your readers the present state of the discussion. M. Richélot first gave an account of a man of twenty-five years, who had been in a hospital for orchitis in a single testicle, complicated with a strangulated hernia on the side that the testicle was missing from. In the course of the operation, which was performed for the radical cure of the hernia, the testicle was found above the abdominal ring, and as it was atrophied, while the patient did not know of its existence, castration was performed as soon as the hernia was reduced.

This action was considered justifiable in this special case, but as a general rule, for its moral effect, the testicle should be allowed to remain, and attempts have been made even to suture it to the scrotum. M. Richélot did not regard the dissection of the sac in these cases such a difficult matter as many suppose, unless there was found complete adherence between the sac and the hernial mass. Care should be taken to penetrate clear up to the *true sac*, to isolate the persistent vagino-peritoneal tract, and to resect the serous canal in such a way as to prevent the testicle being hurt should it be ectopic. The cord should be freed at a certain point, and the inferior portion of the tunica vaginalis sutured and closed up, and then a careful dissection must be made of the superior portion up to the inguinal opening. M. Terrillon said that he dissected along the lateral sides of the canal as high as possible, and then he sutured these sides together all along with catgut, so that they formed

a sort of cushion on which the elements of the cord rested, and the intestine (previously reduced) is kept in place by this closed up column of sutures.

M. Lucas-Championnière said, that the best operation is to dissect the vagino-peritoneal serous covering as high as possible and resect it there, and that the best support is given by a good cicatrix formed by the suture of the sac to the mass of tissue around the inner ring. He also advised the performance of the operation for the radical cure every time that the hernia was not a simple one. He would perform the operation for any patient who sought it, even if only for the reason that the truss was insupportable to him, for he considered wearing an apparatus almost as dangerous as the operation.

M. Anger presented a patient whom he had lately operated upon for hernia, in order to prove the value of his plan of not trying to obtain a primitive re-union, but allowing the wound to suppurate, as he claimed that by this means the tissue formed by the cicatrix is much stronger than that formed in healing by first intention.

M. Terrier, with most of the other surgeons, however, would not admit this; most of them were of the opinion that first intention healing gave the strongest cicatrix.

M. Berger said that it would seem, from what had been said so far, that the radical cure is the only treatment for these hernias, so he proposed to ask some questions. First.—Is congenital hernia incurable by other means? and is it dangerous to life? Second.—Is the radical operation benign and efficacious? He had examined the records of ten thousand cases of hernia where trusses had been given out at the hospitals. Taking sixty of them to study apart, only two of them between the ages of fifteen and seventy had declared their hernia to have been congenital; so it is seen that congenital hernia is somewhat rare in adults who had worn a truss from childhood, and it would seem also that the affection is not an incurable one. It is also a recorded fact that "*congenital hernia terminates favorably whether operated upon or not*;" as a rule it can be reduced by

taxis under chloroform. Kelotomy is also successful in many cases, so that they cannot be declared dangerous to life either, for they are often cured by other means, such as appropriate apparatus. The second question, as to the radical operation being benign and efficacious, could also be answered in the negative. Socin did one hundred and thirty-six operations, fifty-two of them for strangulated hernia, and in these he had two deaths. The British Medical Association last year reported fifty operations and two deaths; another series of statistics gave sixteen operations and four deaths, so that at least *four per cent. are lost*. From the thousands of cases in the Paris hospital statistics where trusses only were in use, the loss even in strangulated cases never amounted to one per cent. As regards the efficacy of the radical operation, Socin reported sixty-four cures in his cases, but he also gave forty-one returns of the hernia, and he does not follow his cases up to thirty or forty years of age, the period when the operated congenital hernias very often return.

M. Berger, however, does not wish to be understood as advocating the absolute rejection of the radical cure in hernia, but lays down the following rules: 1st. Never make the operation in congenital hernia before fifteen years of age, because spontaneous cure, or that by bandage, may be hoped for up to then. After fifteen, the operation can be advised, if the hernia persists or increases after proper bandages are used, but it would do no harm to wait longer still in some cases, even up to the twenty-fifth year of age. The existence of ectopia, or of an irreducible portion of omentum, is a formal indication for operation, but here again not before fifteen years of age as the rule.

Professor Trélat gave the following as his rule: All hernias, congenital or not, that are not *completely, constantly and easily reduced and controlled by a bandage, are to be operated upon*, by the cure called radical, which is not so radical as its name implies, being merely an operation that facilitates the retention of the intestine. He was also much disposed to accept M. Terrillon's

method of holding the intestine up by suturing the adjoining sides of the sac and preserving the elements of the cord when possible.

Professor Léon Le Fort said it was going too far to say that the radical operation was even less dangerous than a bandage, as most of the patients after the so-called radical cure had to wear a bandage. He was not disposed to accept M. Trélat's rule, for some hernias containing a large quantity of omentum could not be entirely controlled, and yet did not need an operation. Then, again, there were others that were not constantly retained as some patients let them out at night, but that did not call for an operation. A great deal depends on adjusting a *proper sort of bandage*. M. Le Fort described how a proper bandage should be fitted by the surgeon; not by sending the patient to a bandage store or giving him one from stock. Prof. Le Fort, after reducing the hernia, places over it a flat piece of gutta-percha (which is first softened in hot water), much as the dentists take an impression of the mouth for a set of false teeth. He presses this preparation in as closely as possible, making perfect adaptation to the depression; a plaster-of-Paris cast of this is then taken, and a counter-cast made of hardened plaster, and this mould is placed in a vise, or between a letter-press, and a sheet of felt (softened by heating it) is placed between, so that a perfect form is obtained. This is tried on several times, and the rest of the adjusting of the spring, strap and pad is easy. M. Verneuil closed the discussion by saying that he reserved the operation for the radical cure for complicated cases.

Epidemic of Saturnine Intoxication Caused by Flour.—In the month of June, 1887, more than a hundred persons living near the town of Roanne were taken with peculiar symptoms; some of them had a general feeling of extreme weakness, others had pains like chronic rheumatism, while others again vomited, and the larger part of them had violent colicky pains. Subsequently they were mostly found with the blue line on the gums that established the diagnosis of lead poisoning. After a long investigation it was found

that the rye flour used by the community all came from the same miller, and on close examination it was found to have minute quantities of lead in it. The mill was carefully looked over but no trace of the metal was found until the elevator apparatus was examined, when it was noticed that the small buckets carrying the flour from the mill to the sifting machine were lined with a lead composition. The flour before it passed these buckets was pure and afterward contain lead particles; so that notwithstanding the slight passage of the flour through these cups it was enough to contaminate it with poison, as was proved by the complete disappearance of all symptoms after the system was changed. The conclusions voted by the *Société de Médecine Légale* in this case were as follows: 1st. The employment of elevator tins lined with lead to carry flour can lead to serious saturnine intoxication. 2d. In the present case it was in the form of the lead sulphate that had combined in the flour owing to the fact that the mill stones had been repaired with the sulphur cement, but it was evident that sulphur would have done no harm by itself if the buckets had not been lined with lead. In any case, no matter how small the dose of lead is, if it is long continued it will certainly lead to saturnine intoxication.

Myrobalanus.—Considerable use is made of this medicine in the East (Turkey) for dysentery and other chronic diarrhoeas with real success, and is said even to cure cholera. M. Constantin Paul has recently tried it at the Lariboisière hospital here. It is a dried fruit of the plum kind. There are four true varieties called M. Citrina, or yellow; M. Indica, or black; M. Bel-liric, and M. Chebula. The black is mostly used; it has a strong bitter taste, is without smell, and colors the saliva green. It is commonly given in pill form, using four, eight, or even twelve pills in twenty-four hours and gradually reducing the number.

Action of Hydrofluoric Acid in Cases of Phthisis.—A report made to the Academy of Medicine, in regard to the treatment lately adopted by Drs. Seiler and Garcin as above, says that for many years the caustic action of this

acid had prevented its use in therapeutics; but in the great glass works at Baccarat it was noticed that the workmen were not at all bothered with the vapors of the hydrofluoric acid used in the manufacture of glass; indeed, they were quite of an opinion that it was beneficial to those among them who suffered from pulmonary complaints if they were allowed to inhale its vapors. As long ago as 1862, Dr. Bastian made some experiments with this acid in bronchial complaints as well as phthisis, and he was followed in this afterwards by Professors Charcot and Bouchard, without, however, any satisfactory result being obtained. Lately, M. Dujardin-Beaumetz tried it again, and for some time back the results obtained by the present experimenters have been so remarkable, that they do not hesitate to ascribe to this treatment the first rank in the treatment of phthisis pulmonalis. First of all, it is certainly well supported in the form of vapor by all patients; and it is a most powerful antiseptic, for applied to fetid wounds in feeble doses, such as 1 to 2000, it will modify the discharges. It has also been used in a strong solution painted on the parts (ten grammes of hydrofluoric acid to fifty grammes of water). M. Hippolyte Martin made a series of trials to prove whether or not it would destroy the bacillus, using the ammonium fluoride. This is a solid salt, and can be handled better than the acid itself; a solution of this salt does not affect the skin when used upon it, while the acid does. From these clinical trials, and others made on rabbits, which were made tuberculous by inhalations of sputum from phthisical patients, it resulted that this acid was found to have a considerable destructive power over the bacillus. M. Garcin passes a weak solution of the acid in water, through carbonic acid gas, and has the patients inhale the vapor coming from this. One of the first effects he noticed was a return of appetite, which is remarkable, for it is truly said that if the digestion can be kept up there is a good chance of cure in phthisis. The night-sweats, cough and fever are all improved under its use, while the breathing becomes more free, and,

contrary to expectation, there was no hæmoptysis from the acrid gas. The expectoration changes in character from yellow to white, and the bacillus in some cases disappears, or at least can no longer be found in it. The following are the statistics of one hundred cases given by M. Garcin: Cured, thirty-five; ameliorated, forty-one; stationary, fourteen; deaths, ten. The Committee concluded that the inhalation of hydrofluoric acid vapor possesses incontestable therapeutic value when the phthisis was not too far advanced, and that its application was easy, while it could readily be combined as a base with any other good therapeutical applications, as well as with hygienic treatment, which is still regarded as the best of all.

Phosphate of Copper in Phthisis.—Considerable attention has been attracted to Dr. Luton's claim that phosphate of copper has a curative action in tuberculosis, and a long description of the method, with formulas for internal treatment, is given in No. 30 of *Revue General de Clinique et Therapeutique*. At present he proposes to extend its use to the external manifestations of tuberculosis, such as the so-called scrofulo-tuberculous ulcers, adenopathies, fistulous tracts, etc. The tendency among Paris surgeons and physicians is to deny that such a condition as scrofula exists. Prof. Lannelongue and others teach that Pott's disease, coxalgia and many abscesses and tumors are simply the effects of regression of tubercular deposits. To return to Dr. Luton's cure, he uses an ointment as follows:

Vaseline 50 grammes
Pure phosphate of copper. 50 centigrams
Or, stronger still,

Vaseline..... 30 grammes
Pure phosphate of copper. 1 gramme

These he used topically on all ulcers, or rolled out in bougie form for introduction in fistulas.

THOMAS LINN, M.D.

Paris, Dec. 9, 1887.

CHLOASMA.—When patients are troubled with *pigmentary deposits* during pregnancy, Prof. Stewart gives a persistent treatment of Fowler's solution and aromatic sulphuric acid.

ABSTRACTS AND GLEANINGS.

PROVIDENT DISPENSARIES.—At a recent meeting in London, a scheme was presented by which medical attendance for the industrial classes was to be placed on a self-supporting basis. This plan contemplated the opening of dispensaries in each district, forming a union with the hospitals. Single persons were to pay twelve cents a month, twenty-four cents for a man and wife without children, twenty cents for a couple with children, and six cents each for children under sixteen years.

The dispensaries were to be open only to those whose earnings do not exceed the following: For a single person or man and wife, \$7.50 a week; for a family, \$10 a week; for domestic servants, \$75 a year.

Persons requiring immediate attendance pay an entrance fee of not less than sixty-two and a half cents, which entitles them to treatment for one week, after which they pay twenty-four cents a week if able to call on the doctor, and sixty-two and a half cents if visited at home.

The scheme was advocated by Sir Spencer Wells, Mr. Timothy Holmes, and Dr. J. Grey Glover; and was finally carried by an overwhelming majority. The doubt was expressed that the scale of charges was too meagre for the needs of the physician, which would seem exceedingly probable.—*The Lancet*.

MASSAGE IN BILIARY COLIC.—CONINGORE reports a case of biliary colic in which systematic pressure and relaxation was made to the gall bladder for half an hour, when relief was suddenly experienced followed by the discharge of a large mass of small gall-stones. A second attack was relieved by the same manipulation.—*Progress*.

ONE of the largest and oldest British Life Insurance Companies, which has kept separate registers for twenty years, declares that, among the strictly abstaining class, the real mortality has fallen short by 30 per cent. of the ordinary expectancy, while fully 99 per cent. of moderate drinkers have attained this expectancy.—*Med. and Surg. Reporter*.

REVIEWS AND BOOK NOTICES.

PENNSYLVANIA STATE COLLEGE, AGRICULTURAL EXPERIMENT STATION, BULLETIN No. I.

In this little pamphlet we see evidences of the growth of an institution which has finally won its way into favor, in spite of deeply rooted prejudice. The practical farmer looked with derision upon the man who would attempt to acquire the lore of the agriculturalist from books, while the boy who could take a college course expected the easier life of a profession. These causes tended to dwarf the growth of the college. Now-a-days the professions have become over-crowded, and the general elevation of the educational standard has resulted in an increase of respect for the educated workman. The ancient agriculturist has found that a man who speaks grammatically may draw a furrow straight, and that something else besides experience may teach one what soils may be benefitted by lime. From this change in public sentiment comes prosperity and popularity to the State College. Its work is quite in accord with public needs. It "invites correspondence and suggestions from farmers. Inquiries pertaining to agriculture or horticulture will be answered. Samples of produce will be examined and reported upon; useful and injurious plants, insects and fungi will be identified; and, in short, all work proper to such a station will be performed free of charge, so far as it is for the general use and advantage of citizens of Pennsylvania." Such a work, directed by capable persons, should prove of the greatest value to the State; and this, we believe, will be the case, as the agricultural classes come to appreciate the privileges offered to them.

ANATOMY, DESCRIPTIVE AND SURGICAL.

By HENRY GRAY, F.R.S., etc. Edited by T. PICKERING PICK. A new American, from the Eleventh English Edition. Thoroughly revised and re-edited, with additions by WM. W. KEEN, M.D., Professor of Surgery, etc. To which is added "Landmarks, Medical and Surgical." By LUTHER HOLDEN, F.R.C.S., with additions by WM. W. KEEN, M.D. Phil-

adelphia, Lea Brothers & Co., 1887. Sheep or cloth, 8vo, pp. 1100.

The present edition of Gray has been carefully revised by Prof. Keen, who has made some additions which will be appreciated alike by the anatomical student and the surgeon. The addition of color to the diagrams makes them appeal more strongly to the eye, and possibly impresses them upon the memory. Recent advances in anatomy have been incorporated in the text, making the work a cyclopædia of human descriptive and surgical anatomy. We congratulate the students who are able to obtain such an anatomical text-book as this.

THE PRACTICE OF MEDICINE AND SURGERY APPLIED TO THE DISEASES AND ACCIDENTS INCIDENT TO WOMEN. By W. H. BYFORD, M.D., and HENRY T. BYFORD, M.D. Fourth Edition. Revised, rewritten, and very much enlarged. With three hundred and six illustrations. Philadelphia, P. Blakiston, Son & Co., 1888. 8vo, pp. 820.

The careful revision and additions which have been made to Prof. Byford's well-known work on diseases of women constitute it one of the best of the recent treatises which we have seen. The principal additions are the chapters on "Practical Observations upon the Anatomy and Physiology of the Female Pelvic Organs;" "Examination of the Female Pelvic Organs" (three chapters); "Displacements of the Uterus" (three chapters); "Affections of the Ovaries" and "Fallopian Tubes;" and the paragraphs upon "Oöphorectomy," "Tumor of the Broad Ligament." The book is handsomely printed and abundantly illustrated.

THE Medical Society of the County of Kings, has authorized the publication of a monthly medical journal, to be known as the *Brooklyn Medical Journal*.

LA RIFORMA MEDICA, edited by Prof. G. Rummo, enjoys the distinction of being the only daily medical journal in the world. It is published in Rome, and is a welcome addition to our exchange list.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

A PHARMACIST'S VIEW.

EDITORS OF THE MEDICAL TIMES:

I have just read with much interest Dr. Mitchell's article in the MEDICAL TIMES, to which you were kind enough to call my attention. Leaving out a little exaggeration, probably put in to make it read better, the article is very true.

Dr. Mitchell takes the mistaken ground that men, whether physicians or apothecaries, are governed and ruled by what he calls "business competition," without regard to principle at all. There be men and men, and what may be true of some is entirely untrue of others. I believe that the abortionist is rare in the medical profession; I believe that the sharper is rare among the lawyers; I believe that the seducer is rare among clergymen; I believe that the man who substitutes and adulterates is rare among apothecaries.*

I expect that it is entirely true that there are abortionists among physicians, and that there are men who substitute and adulterate among apothecaries, but it is as untrue and as mistaken to think that the rule is substitution and adulteration among apothecaries as it would be that the rule is that physicians are abortionists.

As to the counter prescribing, there are a large number of stores in the city where such a thing is not done at all. Leaving my own place out of the matter entirely, I do not believe that Mr. Morgan, or Mr. Shinn, or Mr. Grahame, or Mr. Borell, or Mr. Ottinger, or any one of the great many others that I could name, do any such thing or permit it to be done in their stores. *This*

* We can endorse this statement, from our personal experience of thirteen years' practice in Philadelphia.—EDS. PHILADELPHIA MEDICAL TIMES.

sort of thing is done, and cannot well be avoided. A man would come in and say, "I want a bottle of cough mixture," without specifying what cough mixture he wants, and without saying anything definite, he is likely to get Brown Mixture or Jackson's Pectoral Syrup or some such thing; or he will say he wants a plaster to wear on his chest for a cold, and the apothecary will give him an Allcock's Porous Plaster, but as to any going into symptoms and so attempting a diagnosis and then a prescription based upon this diagnosis and these symptoms, such things are not done in the better class of places. It may be done in some places, and probably is, but the remedy for that sort of thing is to not let prescriptions go to such places.

As to the charges against physicians, I have known of men standing high in the profession who have written prescriptions in cipher; but in my very long and large experience, I have never known of but two men to do that thing. I have had a great many prescriptions for preparations, the formulas of which were not known to me, and which formulas were either those of the physician or of some apothecary, who had made a nice preparation and gotten a physician to prescribe it. When the formula has been a formula originating with the physician, I have always asked him for it, and have never been refused but in one case, and that was in the case of one of the men who writes his prescriptions in cipher. When the formula has been a formula originating with the druggist, I have, of course, never asked the apothecary to give me, for nothing, that which has cost him time and labor, but have never been refused the privilege of buying such a quantity of the preparation as I wanted to fill what prescriptions I might have.

I have been here in this store now for nearly twenty-one years. In that time, I have never been approached by a single physician with any proposition, direct or implied, for a percentage on prescriptions. I do not know to-day the man whom, if I were inclined to, I would dare approach with such a proposition myself, and I do not know of such a thing ever having been done, directly

or indirectly (and I want to make this statement as broad as words may say), anywhere or by any persons or firms in the city of Philadelphia.

These are the points in which it seems to me that Dr. Mitchell's article is exaggerated. I fail to find in my own experience, or to hear of it in that of others who are seeking honestly to do a legitimate business, the clashings and misunderstandings and bickerings that Dr. Mitchell talks about as existing between the physician and the apothecary.

The difficulties of pharmacy as a business he does not exaggerate in the least; whether he overdraws the picture as far as the practice of medicine is concerned you know better than I do.

Now just one personal word at the end—and maybe you think that a good many words have been “personal” so far—but if by a “prominent Chestnut street pharmacist” is meant your humble servant, please distinctly understand that it is not for the purpose of “counter prescribing” in the future that I am studying medicine. You can rely upon one of two things as the outcome of it: either that I will be a better apothecary only and that I will not prescribe at all, or that I will be a physician exclusively. I shall not be a mongrel.

I have not written this with the thought that you will publish it, but just simply to set myself straight as far as my experience goes; and, lastly, to set myself personally straight with you gentlemen, whom I hope to count always as my friends.

GEO. I. McKELWAY.

Philadelphia, Jan. 3, 1888.

ARE OPERATIVE PROCEDURES ALWAYS ADVISABLE?

JANUARY 6, 1888.

Editors MEDICAL TIMES:

I attended the recent meeting of our County Medical Society, and heard the two papers upon the most recent surgical *fad*, viz., O-oph-o-rect-o-my. It is evident, from the attention paid to it, that the members find this a very interesting subject. The results shown are certainly remarkable. The operation, like so many other surgical procedures,

when contrasted with medical treatment, may be said to be brilliant. The fine results in successful recovery are gratifying, and have certainly expanded our ideas of the possibilities of surgery. Doubtless the future will see as bold and skilful treatment of other abdominal or thoracic organs, with equal success. We are learning how to guard good work and to follow it up with intelligent caution; to aid nature with precision and defend it from fatal, though unseen, enemies. But, because a thing can be done, it does not follow necessarily that it must or should be done. It was brought out, in discussion, that some ovaries had been removed and the pain remained. It was stated that, in one large New York hospital, only one in five of a large number of ovaries removed was found to be diseased. Indeed, a second thought may suggest to us that all the ills of a woman's life will not be cured by the removal of the ovaries. Let us rather say, that the only direct logical teachings of these brilliant sections and faultless recoveries are, that *when necessary* the abdominal organs may be, with less hesitancy, laid bare, and that antisepsis is imperative.

Can it be old-fashioned to suppose that the glory of surgery is its conservatism? In other quarters, surgeons are proud to show limbs and members restored to large measures of usefulness from mangled and diseased conditions, which, ideas current only a few years ago, would have doomed to immediate removal or extirpation. Progress is shown by saving and restoring. But when pain comes, presumably from diseased ovaries, may the conservative policy be set lightly aside and a policy of destruction substituted, simply because it is possible? Rather let us be on the watch to hail that man as on the road of true progress, who will show effectively how to save the organ and restore its healthy function. C.

IS THIS A CASE OF ACUTE OR CHRONIC AMERICANITIS?

Editors MEDICAL TIMES:

In the spring of 1884, my health broke down; and the following were my symptoms: Persistent insomnia,

spinal tenderness, numbness, and formation of two fingers of my right hand and two toes of my right foot, an irritable bladder, and chronic gastric catarrh. I also had pain in my eyes and head after slight intellectual efforts, and suffered from melancholia. Walking, writing and reading all produced great exhaustion.

I thought this train of symptoms was produced by overwork. I had been lecturing on *Materia Medica* and Therapeutics, carrying on an extensive practice in medicine, and speculating in real estate, and also overseeing my farm.

My physician's diagnosis was neurasthenia. The treatment was strychnine, cannabis indica, electricity and blisters on my back, and complete rest for a time, six months of constant travel, and finally change of vocation. For almost two years I have been farming, which has agreed with me quite well. For the past year I have been able to perform a great deal of physical labor. I weigh about one hundred and ninety pounds and have the appearance of robust health. At the time I suffered most, I did not have the appearance, to the casual observer, of being a sick man. My health at this time is moderately good, and my sleep, for weeks at a time, is undisturbed. Undue excitement of any kind, a very hard day's work will, for a short time, interfere with my sleeping. I have used no hypnotics for a couple of years. Several months ago I resumed practice. I have an opportunity to travel for a New York chemical company, to introduce and sell their goods to physicians and druggists. I think it will be more congenial to my taste, and less laborious to myself than to do a country practice. My special object in writing to you at this time is to get your opinion as to the probability of a drummer's life agreeing with me as well or better than the practice of medicine. Do drummers suffer from neurasthenia as much as physicians? If you do not make a specialty of nervous diseases, and are not familiar with such cases, will you kindly ask Dr. * * * * or some other specialist, for his opinion of my entering active business life again? Hoping I have not intruded upon your valuable time. J. H. S.

[From our experience with drummers of various kinds, we are able to give a favorable report upon this subject. We never have observed among this class of men any evidence of nervousness, trepidation, hesitancy, want of self-reliance, or shyness. On the contrary we think that one of the chief essentials to success in this calling is a sort of sclerosis of the peripheral termination of the second branch of the fifth pair of nerves. If our esteemed correspondent has the other qualifications, and an accident policy upon his life, we think that he might enlarge his experience and improve his health at the same time by going "on the road." —Eds. P. M. T.]

FOUR MONTHS IN EUROPE.

Editors *MEDICAL TIMES*:

Will you please allow me space in your journal for the important question, What can be done to undo the mischief of that little book, "Four Months among the Surgeons of Europe," by Dr. N. Senn? It may be ridiculous for me to assail so prominent a man as Dr. Senn; but I do it in the interest of other medical men who, in the pursuit of knowledge, may likewise wish to spend four months in Europe.

On my arrival in Edinburgh, I asked permission of a prominent surgeon to attend his operations, and, in answer, Dr. Senn's little book was put before me. "There, sir, did you ever read that? I had in mind to say to the next American who came, No! Dr. Senn under the guise of a gentleman came among us and we treated him as such; but we do not want to make any more mistakes. Not that he has not spoken most kindly of myself; but he has abused some of the most deserving of men, some of my dearest of friends!" I need not comment on the work. A perusal of it makes too evident the ungentlemanly criticisms of many most prominent British medical men. That he is prejudiced in nationality, is plain; and in individuals, still more plain. This last can be no better illustrated than in the extensive applause accorded a very old man, who had no special interest, but a very young and beautiful wife! There is no excuse for Dr. Senn

indulging his idiosyncrasies at the expense of other Americans who wish to go abroad. In his own city he is despotic; but his skill as a surgeon will excuse him there. It will not over the rest of the world.

Those gentlemen coming hereafter I would advise to bring vouchers for good behavior to all other than German doctors, for you certainly will not be received with the warmth you would like.

The most awkward position I was placed in I could escape from only by replying, that Dr. Senn was not a typical American, and that I was quite sure Americans all mourn over his conduct.

Very truly yours, J. J. L.

[Graduate Univ. of Pa.]

Edinburgh, Scotland, Dec. 16, 1887.

EDITORS MEDICAL TIMES:

I have a case which puzzles me, and if you can find time to help me a little, I will be under great obligations to you. Patient, female, 55 years of age, has been suffering three years with the following symptoms: A feeling of irritation in the bowels and abdomen; which extends down the anterior portion of the lower limbs; and about every two weeks she has a number of dark green movements, which increase the irritation to such an extent that it appears almost unbearable. At night the irritability subsides, allowing her to sleep till perhaps 4 A. M., when its reappearance causes her to awake. The bowels move regularly, and without pain, every morning, and the movements are generally of a dark green color. She is not confined to the bed, and says she would feel well were it not for the "terrible, crawling feeling in the abdomen." There is also slight jaundice. She has been treated by various physicians, without being benefited. When I began with her, she was also troubled with acid stomach and burning generally through the abdomen, which I have relieved. Have given her almost everything I considered applicable to her case. Monobromide camphor pills (3 grs. each) one every 4 hours, with elixir of lactopeptine, after each meal, and a mineral acid just before has done more good than anything else.

Mystic Bridge, Conn. A. M. P.

MISCELLANY.

DR. COUNCILMAN'S INVESTIGATIONS ON THE MALARIAL GERM OF LAVERAN.*—

The organism first described by Laveran has been met with in every case of malarial fever which the writer has met with. The organism is in high degree polymorphous, and ten tolerably distinct forms may be found in the blood. Some of these evidently represent different stages of development and the connection between them is obvious. Others present such marked differences in form, that no connection between them can be made out. Some of the forms are only found outside of the red corpuscles and others are found free in the blood. The forms described are: 1. Non-pigmented, small amoeba-like bodies inside the red corpuscles. 2. Pigmented bodies larger than No. 1, also in red corpuscles. 3. Pigmented bodies about the size of red corpuscles. 4. Segmenting forms of the No. 3 body. 5. Small hyaline bodies, which are formed by this segmentation. 6. A crescent-shaped body with pigment in the centre, the horns of the crescent being often connected by a fine line. 7. Round or oval bodies which differ from No. 6 in shape only. 8. A pigmented body provided with numerous, long, actively moving flagellæ. 9. Actively moving free flagellæ, which are evidently derived from No. 8. 10. A pigmented body with an active undulatory movement of its periphery. The first five forms are found only in intermittent fever. No. 4 only being seen in the blood during the chill period, and its presence is invariably connected with the chill. Nos. 6 and 7 are found in cases of malarial cachexia. The most interesting forms, and about whose parasitic nature there can be no doubt, are the bodies Nos. 8 and 9. These are generally absent in blood taken from the finger, but they may be found in any type of the disease. They are the only forms of the organism whose presence in the blood is not associated with a special type of the disease.

*Abstract of the address delivered by W. T. Councilman, M.D., before the Pathological Society of Philadelphia, at its Semi-annual Conversational meeting. The President, F. P. Henry, M.D., in the chair. W. E. Hughes, M.D., Recorder.

They were found, however, in 15 out of the 20 cases in which the blood of the spleen was examined. Of these 20 cases, 12 were cases of malarial cachexia, and 8 of intermittent fever. In the 12 they were found 10 times, and in the 8 cases of intermittent 5 times. From this it seems probable that Laveran was right in considering the flagellate organism the most important form of the parasite. The influence of quinine on the intra-corpuseular forms of the parasite is most marked. Doses of 15 grs., thrice daily, for 2 days in succession were found sufficient to cause them to disappear. The effects of the quinine were not so apparent upon the other forms. The crescents were apparently not diminished in number in one individual after he had taken 45 grs. of quinine daily for 7 days, and 60 grs. daily for 4 days.

In discussing the paper Dr. Osler said the thought which had struck him most forcibly, in looking over this subject, was the almost perfect unanimity which has prevailed among the different observers as to the appearance of these organisms. With the sole exception of the segmented form (No. 4), Laveran and the early observers had described them all. His own observations, since the communication he had presented to the Society last year, had been somewhat limited. He had, however, made a series of observations upon the blood of fishes and birds, since it had been stated that bodies resembling Nos. 1, 2, and 3 had been found in the blood of carp and some water-fowl. Prof. Baird had offered him facilities for this work at Wood's Holl and had kindly furnished him with 45 carp. He had failed to detect any such organisms in the blood of these. In the blood of a goose sent him from Ontario he had found 1 or 2 pigmented bodies. It had been stated by Dr. McCallum, who sent him the goose, that the bird had malaria. However, the bodies were not numerous, nor was the temperature of the goose elevated, nor so far as he could make out had it chills. Dr. Councilman had not figured one body which is very peculiar indeed, namely, a solid body in the centre of a clear space. It stains like a micro-organism, varies in size,

and although the body itself does not change in form, yet there are sometimes changes in outline in the clear space surrounding it; these were somewhat abundant in one case only. One other point with regard to the clear bodies (No. 1), in 5 or 6 instances he had seen such bodies pass out from the corpuscle, remaining out, and undergoing no further change of form. He was not altogether prepared to say what was the relationship of these bodies to the other bodies described. It has been claimed that similar changes can be obtained by special methods of treating the blood. The most important question is, first, to determine the relationship of the hyaline to the pigmented bodies; and the possibility that the hyaline may not be directly associated with them. He was convinced that the pigmented and segmented bodies were merely different stages. He could fully confirm what Dr. Councilman said with regard to the crescents. They are most peculiar and interesting bodies, occurring in the chronic cases, and in those in which there have been no chills. Three weeks ago he had lectured on a case as one of mild typhoid fever; it had lasted 8 or 10 days with constant fever, up in the evening, down in the morning, slight enlargement of the spleen, no spots. His resident examined the blood and found what he thought were crescents. The case got rapidly better, left the hospital, and returned in a few days with a distinct chill, with crescents in the blood and a well marked remittent fever. The motile forms he had not seen nearly as frequently as Dr. Councilman; though he had not examined the blood from the spleen, they had been present in 8 or 10 cases. Nor had he seen free filaments nearly so often; when he wrote his paper he had not seen them at all. Since then he had watched the process of separation. It was out of the question to suppose that the crescents or motile forms could come from degeneration in the stroma of the corpuscle, but that the hyaline forms resulted from such changes was not altogether improbable, and further investigations were necessary to determine this point. Dr. J. P. C. Griffith called attention to the diagnostic value

of these organisms, and instanced a case where, from the indefinite history and symptoms, he was unable to make a diagnosis until after an examination of the blood, when a short course of treatment resulted in a cure. Dr. H.C. Wood said that no one seemed to have made any connection between the crescents and the amœboid forms, they seem to differ in that these are destroyed by quinine, those are not affected. We know that malarial cachexia is cured by quinine, arsenic and iron; if these remedies have no effect on the crescents, what connection have these bodies with malaria? And what becomes of them. Do they eventually disappear? Dr. Formad asked whether these organisms are the same as the bodies described by Hütter some twenty years ago. Dr. Councilman said, in concluding, that Hütter described moving bodies attacking the red corpuscles, existing in all fevers and apparently almost everywhere else. These observations had never been confirmed. The point raised by Dr. Wood had always puzzled him, and for a long time he had tried to reconcile himself to a belief in two distinct diseases, but this he could not do, as always as the other forms disappear, the crescents appear. He had never seen the crescents unless with a history of previous chills. He was not altogether prepared to say that quinine had no effect on the crescents, though in several cases he had given it in large doses with no results. Still in some cases they do seem to disappear. He thought with Dr. Osler that the crescents could not be possibly produced by changes in the stroma of the corpuscles, though some of the other forms might.

MEDICO-CHIRURGICAL HOSPITAL.—The annual meeting of the corporation will be held at the Medico-Chirurgical Hospital, on Cherry Street, above Seventeenth Street, Philadelphia, on Monday, January 30, at 3 o'clock P.M. Reports from Directors and Managers will be presented.

THE THROAT HOSPITAL, AT GOLDEN SQUARE, W. LONDON, has opened a Post Graduate Course of Instruction in Diseases of the Throat and Nose. Each

course of instruction lasts four weeks, the object being to give actual instruction in the diagnosis and treatment of diseases of the throat and nose, besides a series of didactic lectures by the well-known members of the staff. Old pupils of this School are scattered throughout the country, many of whom will be interested in this new arrangement, which already has been well supported.

OBITUARY.—Robert A. Given, M.D., of Burn Brae, Clifton Heights, Delaware County, died on the morning of the 10th inst., in the 73d year of his age.

CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING DECEMBER 31, 1887.

PASSED ASSISTANT-SURGEON C. BIDDLE.—Detached from the Marine Rendezvous, Philadelphia, and placed on waiting orders.

MEDICAL DIRECTOR C. J. CLEBORNE.—Detached as member of Medical Examining Board, December 31, and ordered to Norfolk Naval Hospital, January 5, 1888.

MEDICAL INSPECTOR M. BRADLEY.—Detached from Naval Hospital, Norfolk, January 5, 1888, and placed on waiting orders.

MEDICAL INSPECTOR J. H. CLARK.—Detached from special duty at Portsmouth N. H., and ordered as member of Examining Board at Washington.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 7, 1888.

MURRAY, R. D., SURGEON.—On being relieved at Ship Island, Miss., to proceed to Key West, Fla., and assume charge of the Service, January 4, 1888.

DEVAN, S. C., PASSED ASSISTANT-SURGEON.—Relieved from duty at Port Townsend, W. T., to assume charge of Sapelo Quarantine, January 5, 1888.

GLENNAN, A. H., PASSED ASSISTANT-SURGEON.—Relieved from duty at Key West, Fla., to assume charge of the Service at Port Townsend, W. T., January 5, 1888.

CARRINGTON, P. M., ASSISTANT-SURGEON.—Promoted and appointed Passed Assistant-Surgeon from January 20, 1888, January 7, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE TWO WEEKS ENDED DECEMBER 31, 1887.

BEVAN, A. D., PASSED ASSISTANT-SURGEON.—Resignation accepted, to take effect January 31, 1888, and leave of absence extended to that date, December 31, 1887.

BRATTON, W. D., ASSISTANT SURGEON.—Granted leave of absence for thirty days, December 30, 1887.

PHILADELPHIA MEDICAL TIMES.

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CLINICAL LECTURE.

A MEDICAL CLINIC.

BY FRANCIS DELAFIELD, M.D.,

Professor of the Practice of Medicine and of Pathological Anatomy in the College of Physicians and Surgeons, New York.

IDIOPATHIC CARDIAC DILATATION.

GENTLEMEN :—The patient before us is forty-eight years old. He has been engaged in a stone-yard where he had heavy lifting to do. He tells us that his health was good until three weeks ago, when he began to have shortness of breath, loss of appetite, with pain about the stomach and some regurgitation of sour fluid. He continued at his work in spite of these feelings for a week, but for two weeks past he has not worked at all. These symptoms, however, have continued.

We find that his urine is normal; the lungs are moderately emphysematous; the heart is very decidedly increased in size, due partly to dilatation, partly to hypertrophy, but much more to dilatation than to hypertrophy. We find that the heart's action is rapid; that the first sound is not nearly as loud and long as it should be, but there are no murmurs.

There can be no question, I think, about the diagnosis. That which

should make us hesitate concerns the treatment rather than the diagnosis. I think there is no reasonable doubt that the man presents that curious lesion called idiopathic dilatation of the heart, a condition concerning the etiology of which we are very ignorant, but one which we recognize as existing in more and more cases from year to year. In these patients there is no chronic endocarditis; there is no change in the valves of the heart; but at some time, without discoverable cause, the cavities begin to increase in size. They increase in size pretty rapidly; and with this increase in the size of the cavities of the heart, there is uniformly a rapid and feeble action of the organ, more or less shortness of breath and more or less loss of strength, the urgency of the symptoms varying very much in different patients.

In some of the cases we will get a definite history, such as this man gives: a history of an occupation involving severe muscular exertion; with this there is apt to be developed emphysema of the lungs. In some patients, in addition to the history of unusual muscular exercise, there is also a history of intemperance, especially of intemperance as regards beer. This man says that two years ago he was in the habit of drinking a few pints of beer a

day. In a considerable number of cases we get a combination of a laborious occupation and the habitual drinking of large quantities of beer, with the development of emphysema and this form of dilatation of the heart. There are other cases in which this condition of the heart comes on suddenly after a single severe exertion. Thus there is a variety as to the exact history of these patients, but this man furnishes a very good illustration of one particular type.

As a rule the first thing these patients require is rest. They should be kept as quiet as possible; indeed, a great many of them require to go to bed and be kept there, not allowed to move about at all. On the other hand you will meet from time to time patients whose general condition, like this man's, is such as rather to make you hesitate about putting them to bed. We have here a man of large frame, well developed muscles, who has been accustomed to out-of-door life and a good deal of exercise. It is no trifling thing for such a man to be shut up in a house or confined to bed. You might in that way injure his general health more than you would do good to his cardiac disease. So, in some of these cases it is not at all an easy thing to determine which is the better course; and the difficulty is enhanced by the social conditions of a large number of the patients. They are laboring people, whom it is difficult to place under the best of circumstances. If you tell this man not to work, it means that he will sit in his room, sit about the stove, probably smoke all day, hang about, doing nothing and the demoralization of this sort of loafing is very great indeed. Still more, the temptation to drink is greatly enhanced. "When a man has nothing to do he naturally drinks," and that, of course, is not good for these patients. So I doubt whether it would be wise to shut this man up indoors. I should be disposed to advise him to go about out of doors, not trying to work, but not sitting in the house all day. I should put him on regulated diet. He should eat solid food, but he should avoid indigestible articles. As for medicine, I do not know that we can do better than to order him the tincture of *strophanthus*. That

is a cardiac stimulant which I think would be most likely to regulate the action of the heart in his case.

AN OBSCURE CASE.

This man works upon gas-fixtures. His age is thirty-eight. The history obtained in the reception-room was that his illness commenced twelve days ago. The man now tells us, it began last Monday, but you can see that he evidently is sick, and it is possible he does not remember. Three days ago he was seen, and his temperature then was 100° F. Yesterday it was 98.6°, and to-day it is 98°. The man is perspiring at the present moment pretty freely, although the room is only comfortably warm. His tongue is coated. It is also stated in the history that a general eruption made its appearance on Tuesday. There is now an eruption on the chest, but it does not belong to any of the regular eruptions with which I am acquainted. The perspiration is manifest not only on the forehead, but it extends over the body and the eruption is also present on the chest and abdomen. It consists of little round spots which are not characteristic. There is nothing abnormal in the throat. It is evident enough that the man is sick; he is in this curious apathetic state, without elevation of the temperature, but with profuse perspiration. The expression of the face is not unlike that of a patient with typhoid fever, yet there is nothing else about the case to make one think of that disease. I am unable at present to explain what is the matter with the man.

CHRONIC CATARRHAL COLITIS.

This man is 38 years old. He tells us he has had diarrhoea about three months. The movements were small; they contained mucus, but did not contain blood. This diarrhoea has continued, the passages being most of the time mucous, at other times more faecal in character. The man has lost flesh and strength, but he has managed to keep at his work until quite recently. He says these passages are sometimes preceded by pain in the bowels. He has had no sickness at the stomach. His appetite leads him to take food, but as soon as he has taken a few

mouthfuls, he finds his appetite leaves him.

I think chronic catarrhal colitis is unquestionably the cause of the man's diarrhœa. I should suppose that, although the inflammation has at no time been very severe, it now has a pretty firm grip on the intestine. I doubt whether he would be benefitted by medicine alone, if he continued going about and tried to work. The beginning of the treatment should be to put the man to bed and give restricted diet. That is all I should do at first. I should not now give him any medicine at all. I should simply have him go to bed and give him an exclusively milk diet. What the further treatment of the case would be would depend upon how well he got along on this. There is quite a difference in patients as to the particular medicine which is best to administer, although they may be suffering with the same disease. Some do very well indeed with a mixture of castor oil and tincture of opium, taking twenty minims of castor oil and two minims of deodorized tincture of opium, made up into an emulsion with mucilage, three or four times a day; castor oil in this case not being given as a laxative at all, but as a remedy directed to the inflamed condition of the colon. I do not know that there is any theoretical explanation of its good effect, but, as a matter of practice, we find that it is of very great benefit to a good many of these patients. Then other patients do not do very well with this remedy; they may do very much better with belladonna, ipecac and bismuth taken together: a quarter of a grain of the extract of belladonna, half a grain of ipecac and five grains of the subnitrate of bismuth, given together three or four times a day. Then other patients will do better with one or other of the mineral acids. So, in the different cases sometimes one, sometimes another, remedy will render the best service. But in all cases I think the rule holds good that, if the disease has lasted a sufficient length of time to reduce the weight and strength of the patient, there is very little use in beginning with any of these remedies if the patient is allowed to go about. On the other hand, they often

do very well without any medicine at all, if they are put to bed and are restricted to a milk diet. After they have begun to improve, you may use one or other of these remedies.

LEUCOCYTHÆMIA.

This man, aged thirty-two, tells us that his health has been failing several months. He is not very clear as to the exact time when his failure of health began, which I suppose means that it came on very gradually. The first thing which seems to have attracted his attention was the loss of strength. He also had a little dry cough, which does not seem to have amounted to very much. The failure of strength has been apparently a prominent feature of his case up to the present. Latterly there have been swelling of the abdomen and moderate dropsy of the feet and he now tells us that he bleeds at the nose a good deal.

When we come to examine the man, he does not look very sick; his color is not very bad. The only thing which you would notice about him is the prominence of the abdomen. We find that there is a systolic cardiac murmur in the second left intercostal space. The lungs give a few subcrepitant rales behind.

The abdomen is distinctly enlarged, and the enlargement is due to a great increase in the size of the spleen and a moderate enlargement of the liver. With such a history as this, and with such a physical examination, you would at once think of two diseases as those between which the differential diagnosis must be made. To tell with which one of those two diseases the man is suffering it will simply be necessary to examine the blood. The diagnosis rests between leukæmia and pseudo-leukæmia. A little of the man's blood has been examined during our remarks, and that examination settles the question at once in favor of leukæmia or leucocythæmia. There is one white blood cell to ten red ones, which is a very marked increase in the number of the white. While the case is very evidently one of leukæmia, yet the man's lips are not anæmic; they do not look white; the face is not pale; you have seen many ill-nourished patients whose faces were much whiter than his. In

fact this man's lips and skin are of good color. That is a point for which you should be on your guard in cases of leukamia. A great many of the patients become very pale indeed, but others show no marked pallor even in an advanced stage of the disease.

ORIGINAL COMMUNICATIONS.

THE PHARMACOLOGY OF THE NITRITES AND OF NITRO-GLYCERINE.

BY G. ARMSTRONG ATKINSON, M. D.,
Edinburgh, Scotland.

Read before the Section in Therapeutics of the
Ninth International Medical Congress, by
Ralph Stockman, M. D., of Edinburgh.

THE pharmacology of the nitrites and of nitro-glycerine is most conveniently discussed by considering in the first place the pharmacology of the nitrites, and then the pharmacology of nitro-glycerine.

The Pharmacology of the Nitrites.

—The essential basis of pharmacological action in this group of medicinal agents is nitrous acid, an acid which is remarkably unstable at ordinary temperatures, especially in the presence of water. By making a watery solution of about one in three thousand, there is a not very rapid deterioration, and such a freshly prepared solution may be used for a couple of days or so. The solution, however, has no advantage over a simple metallic nitrite solution as of nitrite of sodium; and the experiments carried out with it, on myself, on rabbits and frogs, showed its action to be identical with that of a solution of nitrite of sodium, in so far as the action of an acid can be considered identical with one of its salts. Our knowledge of the actions of the nitrite group has chiefly been derived from the effects produced by nitrite of amyl. Since here the base (amyl) has a decided action of its own, it is advisable, in order to ascertain the action of nitrous acid in combination to form a salt, to select such a nitrite as nitrite of sodium, the base sodium possessing in its combinations no well-marked pharmacological activity.

The Pharmacology of Nitrite of Sodium.—The literature pertaining to

the action of this nitrite is not great. Gamgee, Lauder Brunton, Hay, Leech and others have all recorded their experience of a like similarity of action between this salt and amyl nitrite. Barth (*Toxikolog. Untersuch. Ueber Chilisaltpeter*, Bonn, 1879) pointed out its highly poisonous qualities. Binz (*Archiv f. Exper. Path. und Pharmak.*, xiii, 133) gave some experiments as to its general action on dogs, rabbits and frogs, showing that it produced death from a general paralysis, especially of the muscular system, no convulsion preceding the fatal issue. Reichert (*Americ. Jour. of the Med. Sciences*, vol. 80, p. 158) states that he found its action, so far as he investigated it, identical with that of nitrite of potassium, with which nitrite he made a long series of experiments which will afterward be referred to. The nitrite of sodium used in the experiments I am about to detail was re-crystallized by myself from commercial specimens of the salt, and contained nitrous acid equal to from 99.2 to 99.4 per cent. of actual nitrite.

GENERAL ACTION.

On Frogs.—Almost all the experiments were made on winter and summer specimens of the *Rana temporaria*. Those made on the *Rana esculenta* were merely check experiments and showed no difference. The general action on frogs is well seen in animals to which minimum lethal doses of nitrite have been administered. For frogs of 25–30 grams, .15 grain (.00972 gram) is a fatal dose subcutaneously injected. Such a frog, with such a dose, in about two minutes after injection, without any preliminary stage of excitement, leaps less readily, and its reflex movements are less vigorous. In ten minutes after injection, it jumps feebly and unwillingly, its cutaneous vessels are dilated, their contents are darkened and respiration is slower. After fifteen minutes, the animal sits with its thorax only slightly raised from the table, its respirations are decidedly slowed, the pupils are as large as before the experiment commenced, the lower eye-lids are slightly closed, on pinching the legs a feeble reflex movement is produced, and the animal crawls away with a kind of walking movement. It cannot jump

and cannot turn off its back. In one hour, having gradually become feebler without any twitchings or convulsive movements, respiration has ceased. The exposed ventricle of the heart is beating slowly, generally about 18 per minute; the auricles usually about twice as fast. The blood is markedly chocolate colored. The strongest stimulation of the exposed sciatics, by a Du Bois-Reymond induction coil with one Daniell's cell, produces only feeble movements of the toes. All skeletal muscles inexcitable, except those on inferior aspect of the thighs and legs, which feebly respond to strongest current. Cord on strongest stimulation produces no movement. Ventricle beats $1\frac{1}{2}$ hours more, auricles for three hours, the heart stopping in full diastole and being quite inexcitable. Tissues and blood give nitrite reaction, and blood shows the spectroscopic (on dialysis) appearances of methæmoglobin. Post-mortem rigidity comes on early, the pupils in it are contracted to pin points, and the subcutaneous tissues become somewhat œdematous. Similar doses to larger frogs produce severe symptoms in about 20–30 minutes, the symptoms being similar to the above, but not proceeding to death. The frog gradually revives, and in two or three hours is almost well. Smaller doses produce slighter but similar effects. With larger doses, the various stages occur more rapidly, but without any difference in phenomena. A frog weighing 22 grams received subcutaneously three grains of the nitrite. The animal rapidly became profoundly affected, as described with the other frogs; in five minutes respiration ceased; in 15, the ventricle, and in 18 the auricle stopped beating. The nitrite was ascertained to be readily absorbed from the stomach or the skin of the frog. Strong solutions painted over the legs rapidly killed.

In Rabbits of about three pounds in weight, three grains were found to be a fatal dose; larger rabbits recovered from this quantity. The phenomena are closely allied to those in the frog. A white rabbit weighing four lbs. four ozs. received subcutaneously four grains of nitrite of sodium. Animal almost immediately became very prostrate,

lying down on its belly with its limbs extended, respiration rapid and shallow, blood vessels dilated, and blood of a chocolate color. Symptoms of muscular paralysis rapidly progressed, and in half an hour the animal very feeble and moribund. It now cried once or twice, respiration which had become slow ceased, the rabbit made slight movements of a dyspnoëic character with its fore-paws, and died. Immediate post-mortem—venous system engorged, blood deeply chocolate colored, right ventricle in full diastole, left in moderate systole. Auricles, occasionally, feebly beating. Sciatics and muscles inexcitable. All viscera congested. Intestines contracted somewhat less strongly to strong current than in normal rabbit. Dialysed blood gave nitrite reactions, urine contained a trace of nitrite, but no sugar and no albumen. In rabbits more slowly poisoned, gastric ecchymoses were present, and there was a tendency to looseness of the bowels, but no diarrhœa was ever observed. Larger doses than the above produced death very rapidly; from smaller doses recovery after the development of the severe symptoms was comparatively rapid.

In Dogs the phenomena were much as in rabbits, except that vomiting usually occurred shortly after exhibition of the poison, even subcutaneously. Large dogs of about fifty pounds required about twenty grains, this dose being fatal in a little more than one hour. Post-mortem rigidity, both in dogs and rabbits, was early in its appearance. In dogs nitrite reactions were very usually obtained early, in the urine, in rabbits not always and only when present in very minute traces.

In Man.—I am unaware of any fatal cases. In myself, after taking on an empty stomach eight grains of nitrite of sodium, in a few minutes I experienced a great tendency to faintness, with considerable acceleration of pulse and great lowering of arterial tension. No sickness occurred, but considerable eructation of oxides of nitrogen. No visible flushing of any part of the body was detectable.

ACTION ON THE INDIVIDUAL SYSTEMS.

Action on the blood and circulatory system. The account given of the

general action indicates an important action on the blood and circulatory system. Nitrite of sodium very readily produces methæmoglobin, and in dogs, to which a dose of about four grains of nitrite of sodium has been given, methæmoglobin is found for 30 to 36 hours. The red blood corpuscles are unaltered; the white are readily paralyzed by a one per cent. solution in four or five minutes, by a one per mille in 15 to 20 minutes. The excised heart of the frog is killed by being placed in normal saline containing nitrite of sodium, in 8 to 9 minutes if a one per cent. solution be used, in about three hours if a one per mille. No preliminary stage of increased rapidity of beat occurs, the heart gradually beating more and more slowly and finally stopping in full diastole. Directly applied to the heart *in situ*, death was caused by strong solutions, as 20 per cent., in a few minutes; by weak as one per cent., in an hour or so. Subcutaneously injected the same phenomena occurred, no preliminary increase in rate being present. To ascertain the effect on the heart when the vascular dilatation is not present as a disturbing influence, Williams' well known heart apparatus was employed; with 1 in 1000 death of the heart in diastole occurred in 10 or 11 minutes without any preliminary rise; with 1 in 10,000 a slight rise for four or five minutes was observed, followed by a slow fall to death, which occurred in 40 to 60 minutes; with 1 in 20,000 the rise lasted 10 to 15 minutes, and death did not occur for some hours. The slight rise in blood pressure seems due to a slight quickening of the heart's action, rather than to an increase in the strength of the individual beat. From experiments, with many variations of dose, it was ascertained that no stimulating effect on the vagus termination in the heart, and no paralyzing effect either, was induced. Both arteries, veins and capillaries were widened by the drug as ascertained by a micrometer. The solution of nitrite in normal saline was run through the vessels of a pithed frog, the pressure of the inflowing fluid being maintained at a constant level by means of reservoirs filled with Mariotte's flasks. Dilatation occurred with all strengths, from

1 in 10,000 to 1 in 200,000. In mammals great vascular dilatation and great acceleration of the heart-beat occurs. The ophthalmoscopic appearances are those of slight arterial and venous dilatation with small doses. With large doses this dilatation was rapidly followed by diminution in size. Blood pressure experiments on rabbits showed a steady fall; with no dose was there any preliminary rise in blood pressure ever observed. The heart-beat was markedly accelerated. The vagus terminations in the heart are unaffected when the animal is fully under the nitrite; section of the vagi is still followed by some rise in blood pressure, although the rise is very much less than in the normal animal. Section of the depressor nerves was followed by a fall in blood pressure, probably due to loss of sensory impulses passing from the heart to the accelerating centres in the medulla. When the free carotid was clamped with the blood pressure very low, the rise was only small. The acceleration in heart-beats seems, therefore, to be due to depression of the medullary inhibitory centre, secondary to the fall in blood pressure, which is almost entirely due to vascular dilatation, the heart muscle being only affected in advanced poisoning.

On Respiration the effects are to cause increased rapidity, followed by slowing and finally by stoppages before the heart ceases. The nitrite by producing methæmoglobin and by lowering the blood-pressure causes the increase. The paralysis of respiration is due to the effect of the nitrite on the muscular system chiefly, but also in part to the effect on the medullary centre.

The Temperature falls; a slight rise occurs at the beginning, with the thermometer in the rectum, due to vascular dilatation.

Striped Muscle is rapidly paralysed; non-striped more slowly. In the rabbit non-striped, as of the intestine, is only paralysed by a 1 per 1000 solution in 4 hours; by a 1 per 100 in about half an hour.

Motor and Sensory nerves are almost, if not quite, unaffected even with lethal doses as to their peripheral terminations. Their trunks are also probably unaffected unless the nitrite be directly

applied. The *brain* and *cord* are both paralyzed without any previous excitation, unless a saturated or very strong solution be directly applied. Certainly in the uninjured animal no such stimulation occurs.

On the *urine*, small doses slightly increase the flow; large always diminish it, even if the arterial tension be previously raised by means of digitalis. The *urea* and *uric acid* are almost unaffected. Sugar appears in the *urine* of rabbits, after some hours, if the animal be kept very decidedly under the influence of the drug, but rapidly disappears if the administration of the drug be stopped. The *nitrite* is largely destroyed in the system, being partly, however, excreted as *nitrate*, partly probably as *urea*. A portion of it is excreted as *nitrite*.

THE PHARMACOLOGY OF THE OTHER NITRITES IS BRIEFLY DISMISSED.

Nitrite of potassium is stated by Reichert (*op. cit.*) to produce restlessness and excitement in frogs, followed by depression and incoördination of voluntary movements, occasionally clonic convulsions or a tetanoid condition being present. Motor and sensory nerves are mentioned as being depressed, and the blood pressure is stated as being primarily increased and then diminished." According to this observation, *nitrite of sodium* would markedly differ from *nitrite of potassium* in action, and I made, therefore, a prolonged series of observations with the *potassium salt*. It was found to be practically absolutely identical in action.

Nitrite of ethyl was used, mixed with an equal volume of absolute alcohol. This drug acted much as the *sodium salt*, but much more rapidly, death, after subcutaneous injection, occurring in a few minutes, and by inhalation in one or two. The blood is rendered markedly chocolate-colored from methæmoglobin production. The muscles and sciatics are little affected. Slight dyspnoic convulsions occur, and death is apparently due largely to medullary paralysis.

Nitrite of amyl has been so largely written upon that it requires but little to be said of it. Death with it is partly due to the muscle paralysis, especially

if the drug be subcutaneously exhibited, as then very slow absorption takes place, death not usually occurring for many hours. The fatal issue is principally, however, produced by similar causes to those acting with *nitrite of ethyl*.

The Pharmacology of Nitroglycerine.—This body, a tri-nitrite of glyceryl, as shown by Hay, breaks up in the system with the production of *nitrates*; hence, therapeutically, it has a *nitrite-like* action when given to man and mammals by the stomach, subcutaneously, or by intra-peritoneal injection. Occasionally, with very large doses to rabbits, as five or six grams by the stomach, tetanic convulsions occur. Watery solutions, usually of the strength of one per mille, when subcutaneously injected into frogs, produced a series of phenomena quite different from *nitrite of sodium*. A frog, weighing 20 grams, received subcutaneously 30 minims of a 1 per 1000 watery solution of *nitroglycerine*. In one minute it began to walk slowly about and refused to jump unless strongly irritated. In two minutes it was unwilling to jump at all, and the movements were stiff, with a tendency for the animal to rotate on its haunches. Reflex movements much diminished in three minutes from time of injection. Four minutes after injection it gave a sharp cry, and after a few seconds of very irregular movements pronounced tetanus occurred. The tetanus soon passed off, but was readily induced by stimulating skin until following morning. Animal feeble following day and did not fully recover until third day after injection. If smaller doses be given clonic, but not tetanic, movements occur. If larger, as 100 minims of the 1 per 1000 solution, the animal dies from the exhaustion produced by the tetanus. After death the post-mortem appearances are like those of *nitrite poisoning* to some extent, and the blood on dialysis gives *nitrite reactions*. Portions of the brain were successively removed and clonic movements were localized in the medulla; the tonic in the spinal cord. The effects on the other systems of the body were similar to those of *nitrite of sodium*, being, indeed, due to the production of this

salt. Administered to mammalia by the stomach, death occurred due to nitrite poisoning; but if intravenously injected, tetanus, preceded by clonic movements, invariably was very readily induced by the injection of a few c. c. of a one per mille watery solution into the jugular vein of rabbits. The cause of the non-appearance of tetanus, when given by the stomach, is the slowness of absorption of sufficient quantity to induce convulsions, as the nitroglycerine is not very soluble in water (1 in 760), and, further, the absorbed ether is rapidly partially decomposed into nitrite. The excretion of nitroglycerine is by the urine from which, after large medicinal doses, it can easily be extracted by means of ether.

It is obvious therefore that in nitroglycerine we have a twofold action, that of nitroglycerine and that of the resulting nitrite. Nitroglycerine *sui generis* acts as a convulsive agent; the nitrite, which results from its decomposition, as a paralyser.

(Fuller details of this paper appear in the *Journal of Anatomy and Physiology* for January 7, 1888.)

PUERPERAL SAPRÆMIA.*

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DURING the puerperal period we find various fevers which may be classified as follows:

1st. Septicæmia, or septic infection, in which organisms, multiplying in the tissues, produce local inflammations (parametritis, perimetritis and peritonitis), or, multiplying in the blood, produce septicæmia proper. Lomer, in the *American Journal of Obstetrics* for July, 1884, says: "These organisms are similar to the organisms found in the blood of patients suffering from diphtheria, scarlet fever, and erysipelas, but not necessarily identical with them. They have the form of round bodies, united in chains or clusters."

2d. Sapræmia, or septic intoxication, in which there is an absorption of

a chemical poison produced by the decomposition of placenta, membranes, blood clots, or lochia.

3d. Zymotic diseases, some of which are usually more fatal to puerperal women than to other patients contracting the disease from the same source. Deserving of especial notice are diphtheria, scarlet fever and erysipelas.

4th. The slight traumatic fever accompanying the healing of a wound running an aseptic course.

5th. The rise of temperature which is sometimes observed just before the flow of milk commences.

The following cases, of which I shall give the history, belong to the second class, sapræmia:

Case I.—Annie C., aged 19, white, primipara, was confined Jan. 9, 1886. The duration of the first stage of labor was fifteen hours; the second, two hours; the third, twenty minutes. During the first, second and third days the temperature did not rise above 99°; the pulse ranged from 68 to 88.

The fourth day, at 9 A.M., the temperature was 99°, the pulse 80. Late in the afternoon she had a severe chill. At 7 P.M. the temperature was 104.5°, the pulse 140, and weak. The skin was cool. The uterus could not be outlined, and was supposed to be relaxed, as it actually was, as shown by subsequent examination. There was no pain over any portion of the abdomen or pelvis. Antipyrine, ergot and vaginal injections were used.

The fifth day, at 9 A.M., the temperature was 102.5°, the pulse 124. Same treatment was continued. Throughout the day the patient was somnolent. She could easily be roused, but dropped to sleep immediately upon being left undisturbed. At 7 P.M., temperature was 104.5°, pulse 140. As shown by the chart, antipyrine in fifteen-grain doses failed to reduce the temperature. Late in the evening the uterus was washed out with a solution of mercuric chloride, after which fifteen grains of antipyrine promptly reduced the temperature to 100°.

The sixth day, at 9 A.M., the temperature was 101.5°, the pulse 120. Though the antipyrine and vaginal injections were continued, as the day advanced the temperature continued to rise.

* Read before the Clinical Society of Baltimore, Dec. 2, 1887.

To furnish complete drainage, I took about a yard of common white rubber drainage-tube, and cut a number of openings in the three inches nearest one end. Then inserting the plain end into a large bottle filled with a solution of corrosive sublimate, 1-4000, a stream of the solution was started through the tube, and while the stream was running, the cut end of the tube was introduced into the uterus. The tube continuing to act as a siphon, the uterus was washed out. The bottle was then nearly refilled with the solution of corrosive sublimate and suspended to the side of the bed. In this position the tube still acted as a siphon, but in the reverse direction, and effectually drained the uterus. Twice daily, while the tube remained in position, the uterus was siphoned out through it.

The seventh day the highest temperature was 102.5° . The eighth and ninth days the highest temperature was 101.5° .

These four days, with the drainage-tube in, the temperature was easily controlled by antipyrine.

The tenth day, at 9 A.M., the temperature was 98° , the pulse 96. The drainage-tube was removed, and no antipyrine was given after 6 A.M. At 7 P.M., the temperature was 103° , the pulse 124.

The eleventh day the uterus was washed out, the drainage-tube replaced, and no antipyrine given after 6 A.M. At 9 A.M., the temperature was 99° ; at 7 P.M., it was 101° : showing a rise of two degrees during the day with the drainage-tube in, as compared with a rise of five degrees the previous day, when the tube was out.

Twelfth day, highest temperature 101° ; thirteenth day, highest temperature 99.5° . The patient was bright and cheerful. The milk which had been entirely suppressed began to return to the breasts. The tube came out accidentally, but as there was such marked improvement in the patient's condition, its further usefulness was doubtful, and it was allowed to remain out.

The fourteenth day, at 9 A.M., the temperature was 99.5° ; at 7 P.M., it was 103° , pulse 128.

The fifteenth and sixteenth days the tube was kept in and no antipyrine

given. The highest temperature was 102.5° .

The seventeenth day antipyrine was given, and the temperature did not rise above 101° .

The eighteenth day, at 9 A.M., temperature 101° ; at 7 P.M., 102° . The tube accidentally came out, but as the temperature during this day and the nineteenth and twentieth was easily reduced by antipyrine, it was thought that surely from this time forward the drainage-tube could be dispensed with.

The twentieth day, at 7 P.M., the temperature was 102.5° ; at 10 P.M., it was 105° , pulse 124.

The twenty-first day, at 9 A.M., temperature 105° , pulse 132. Antipyrine in twenty grain doses, repeated every three hours, failed to reduce the temperature. Again the tube was introduced, and the same effect noted as before. The temperature was at once easily controlled by fifteen-grain doses of antipyrine.

The twenty-second and twenty-third days, the highest temperature was 102.5° .

The twenty-fourth, twenty-fifth and twenty-sixth days, no antipyrine was given. The highest temperature was 101° . The tube was removed permanently.

The uterus was washed out twice daily through a soft rubber catheter, until the thirty-third day. The last antipyrine was given the thirtieth day.

The thirty-third and thirty-fourth days the uterus was washed out only once each day, and then the intra-uterine injections were discontinued. The temperature remained slightly above normal until the forty-first day.

(TO BE CONTINUED.)

WHAT TIPPLING DOES.—From a somewhat extended experience with alcoholism, we think it *almost* an impossibility on the Atlantic Coast for any young man or woman of seventeen years of age to commence indulging in wine and beer daily and not feel a growing desire for some more powerful stimulant, and they will soon resort either to the habitual use of distilled liquors, such as brandy or whiskey, or fall victims to the disease of dipsomania.—MANN, in *N. E. Med. Monthly*.

DENTAL IRRITATION AS A FACTOR IN THE CAUSATION OF EPILEPSY.*

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IN all the wide divergence of view as regards the nature of epilepsy, there is a general consensus of opinion that its essential feature is of the character of an explosive discharge from the higher nerve-centres, the nerve-force thus liberated bearing down upon the centrifugal distributions of the motor nerve-tracks with such an excess of energy that inco-ordination of movement reaches the stage of convulsion and spasm. Owing to the periodicity of the convulsive seizures, it has been assumed that, in individuals predisposed to epileptic attacks, the higher nerve-centres are in a state of high tension, of unstable equilibrium; and that it only requires a stimulus of a definite quantity or intensity to excite the explosive discharge.

Writers have generally laid it down as an established fact that the majority of the cases of epilepsy are idiopathic, without definite causation, and due solely to heredity; but it can scarcely be doubted that these cases are properly so classed only as regards the predisposition, and that in them all a morbid action, even though slight in amount, is necessary to call forth the nervous discharge. The morbid process may be centrally located and beyond the reach of investigation, or it may be peripherically located and exciting the convulsion in a purely reflex manner. It is fully conceded by all that injuries to nerves, diseases of the ear, intestinal worms, phimosis, uterine troubles, etc., are all not uncommon peripheral causes resulting in epileptic attacks.

The question has been raised, however, as to whether a convulsive attack due to a peripheral irritation can be regarded as a true epilepsy, or whether it is not to be regarded rather as of an hysterical character. Without attempting to pass judgment upon this subject, it will suffice to quote the recent views of a very competent authority

upon nervous diseases, Prof. H. C. Wood. In commenting upon the convulsion due to a peripheral irritation, he says: "It is almost invariably epileptiform in its general symptoms, and may conform exactly to the typical epileptic attack;" and, while admitting that many of these reflex convulsions partake largely of the hysterical character, he further says: "There are, on the other hand, convulsions which conform to the epileptic type, and which are the result of an organic peripheral irritation."*

A remarkable feature of the epileptic convulsion is its periodicity. Now it is proved beyond question that the higher nerve-centres of the brain act not only as inciting, but also as inhibitory centres to those of a lower level. They are at once reservoirs of nerve-force and regulators of its dispensation. If, therefore, a morbid process at the periphery continuously attack, through nervous intermediation, these higher nerve-centres, it follows that these in time must have their resisting power overcome at intervals, and at successively higher levels, until a final one is reached, when control is no longer possible. The unremitting irritation having at last overcome the resisting power of the highest nerve centres, their energy is suddenly liberated, and the organism is flooded with waves of uncontrollable centrifugal energy, until exhaustion brings about a temporary equilibrium.

The object of this paper is to direct the attention of physicians to a cause of epilepsy which has not hitherto been estimated at its full value, inasmuch as in none of the standard works upon neurology is the subject even alluded to: viz., pathological state of the dental structures. That dental inflammations and disorders are more often provocative of epileptic seizures than is commonly supposed appears quite certain from the following cases, and also from the character of the cause and its effect. Many reasons might be given why dental disorders are peculiarly adapted to call forth this periodical discharge, and why these disorders are habitually overlooked by the physician; but they need not be

* Read before the Philadelphia Neurological Society, December 19, 1887.

* "Nervous Diseases and their Diagnosis."

detailed here. As exemplifying these phenomena, some interesting and instructive cases are adduced.

The following case occurred in the clinical service of Dr. Wharton Sinkler at the Orthopaedic Hospital and Infirmary for Nervous Diseases, to whose kindness I am indebted for the privilege of recording it:

Case I.—Mary L., aged 9, was brought to the hospital in October, 1886, with a history of epilepsy dating from May of the same year. The convulsive attacks first made their appearance on the afternoon of the same day that the child had had three teeth extracted on account of repeated attacks of toothache. One decayed tooth, however, was left remaining in the lower jaw. Previous to coming to the hospital the epileptic attacks occurred two and three times a week. From all that could be learned from the mother, the symptoms were those of a typical epilepsy. There was no neurotic history in the family. She was placed upon from three to five drops of the fluid extract of cannabis Indica for two weeks, during which period she had twelve attacks. The bromide of sodium was then given for two weeks, during which she had sixteen attacks. From November 1 to March 1, 1887, she continued taking the bromides alone, in combination, and, finally, in conjunction with the infusion of digitalis. During the four months of steady treatment she had forty seizures. About the 1st of March the mother made the remark that the child was always extremely restless at night; that she would lie awake for hours complaining of toothache; and even when asleep she would continually grind her lower teeth against the upper teeth. Examination of the mouth revealed a carious and inflamed condition of a molar tooth in the lower jaw on the left side.

From the history of the case, and the possibility that the irritation arising from the diseased tooth might be the exciting cause of the attack, it was concluded to have the tooth removed. This was done under the influence of nitrous oxide gas. The night following the child rested much better, and from that time forward her sleep became natural, her appetite improved,

and her general health became decidedly better. From the last week in February until the present time (December 19, 1887) she has not had a single symptom of an epileptic attack.

That a dental irritation should be capable of exciting an epileptic condition does not appear at all strange when it is fully comprehended how numerous are the recorded cases of ocular, aural, visceral, muscular, and nervous disorders which have been caused by the irritation arising from the pathological conditions of the teeth and associated structures.

The interest aroused by the result of the preceding case led to an examination of medical literature for reports of similar cases. I find that no less than sixteen cases, entirely and immediately cured by the removal of an irritating tooth, have been recorded by different observers, and which are here arranged in chronological order. It is not supposed that this collection embraces all the recorded cases; but it is hoped that it will elicit references to many others, and, what is more important, the reporting of many new cases.

The injurious effects of diseased teeth, and the irritation arising from them, in the production of many general diseases, did not escape the acute mind of Dr. Rush. In a paper published in his collected works,* he records the following:

Case II.—"Some time in the year 1801, I was consulted by the father of a young gentleman in Baltimore who had been afflicted with epilepsy. I inquired into the state of his teeth, and was informed that several of them in his upper jaw were much decayed. I directed them to be extracted, and advised him afterwards to lose a few ounces of blood at any time when he felt the premonitory symptoms of a recurrence of his fits. He followed my advice, in consequence of which I had lately the pleasure of hearing from his brother that he was perfectly cured."

Dr. Ashburner published,† in 1834, a number of remarkable cases of hysteria, spasms, convulsions, etc., due to

* *Inquiries and Observations*, vol. i, p. 199.

† *On Dentition and some Coincident Disorders*, p. 98.

diseased conditions of the teeth. Among others was the following case of epilepsy:

Case III.—A young lady of highly nervous temperament was attacked with epilepsy in the eighth month of her first pregnancy. She had two attacks before her labor, which was a very favorable one. Seven months afterwards the fits reappeared, and occurred two and three times a week. Various methods of treatment were resorted to without success. For a while the intervals between the attacks were somewhat longer, and for a while they appeared twice daily. An examination of the mouth revealed seven carious teeth, which were at once removed. Three wisdom teeth were prevented from erupting on account of a cartilaginous condition of the gums. These obstacles were removed. The epileptic fits at once ceased, and after several years they had not returned.

Case IV.—Albrecht relates* the case of a boy, aged 12 years, who for a period of six months suffered daily with general convulsive attacks. Just preceding the attack there was severe pain in the temporal region. No cause could be assigned for the seizures. Treatment was without avail. Examination of the mouth revealed an overcrowded condition of the teeth, which were in addition unusually large. After removal of some of the teeth the convulsions subsided, and in a short time entirely disappeared.

Case V.—Dr. Tomes publishes† the following: "A lad, a farm-laborer from Windsor, was admitted into the hospital for epilepsy. The usual remedies were tried for six weeks without effect. His mouth was then examined, and the molar teeth of the lower jaw were found to be much decayed, and of some of these only the fangs remained. He did not complain of pain in the diseased teeth or in the jaw. The decayed teeth were, however, removed, and the fangs of each were found to be enlarged and bulbous from exostosis. During the eighteen months that succeeded the removal of the diseased teeth he had not suffered from a single fit, though for

many weeks previous to the operation he had two or three per day."

Case VI.—Dr. Baly records* the history of a case of epilepsy from dental irritation occurring in a man aged 45. The patient was an employee in the Millbank Penitentiary; was of good physique; in good health, and had never suffered from vertigo, headache, or any form of nervous trouble. In the latter part of October, 1850, he began to suffer with toothache. On November 4th the tooth was examined by the medical officer, but on account of its carious condition and deficient light it was not extracted. Nitric acid, however, was applied, which gave the patient relief. On the 6th, the muscles of the right side of the face began to twitch. The muscular spasms lasted four or five minutes, and occurred three or four times a day. "At these times, when the twitchings had reached a certain degree of intensity, the jaw became locked, and he lost the power of speech; but he had no pain in the head, giddiness, or sense of stupor. The paroxysm of spasm in the muscles of the right side of the face and jaws recurred the next day, and on the following day, the fourth after the examination by Mr. Chatfield (the medical officer), the twitchings became more violent, and his jaw locked. He had the sensation of all his teeth falling out, and then lost consciousness. A strong convulsive fit ensued, which lasted half an hour; the same night he had a second fit." These attacks were described as presenting all the features of an epilepsy. A third attack occurred before morning. The next day the tooth was extracted, together with a small piece of bone attached to the root.

For one month the patient was perfectly well, but on the 7th of December, in the middle of the day, he again experienced the spasmodic twitchings, and at the same time became conscious of the existence of something protruding from his jaw; with his fingers he removed a piece of dead bone. In the evening of the same day the spasmodic contractions of the face occurred several times. On the night of December 8, he awoke with a spasm in the cheek, and upon getting out of bed fell upon

* Casper's *Wochenschrift*, 1837, p. 125.

† System of Dental Surgery.

* *London Med. Gazette*, xlviii, pp. 534-540.

the floor unconscious; a general convulsive fit followed, during which there was foaming from the nose and mouth. At 6 A.M., a second fit followed more violent than the first, and lasted five minutes. In the intervals of these attacks there was considerable uneasiness and confusion of mind. The next night he suffered a return of the fit. Examination of the mouth revealed a swollen and tumid condition of the gum, but there was no discernable source of irritation. The patient was placed on calomel to prevent further mischief to the deeper-lying structures around the diseased tooth-socket. He remained well until February 22, when he had, for the space of ten minutes, the same premonitory twitchings in the muscles of the face, but no real fit. A small piece of dead bone was extracted from the gum, after which the old wound healed, and the patient entirely recovered.

In 1857, Dr. Sieveking read* before the Royal Medical and Chirurgical Society a paper entitled "An Analysis of Fifty-two Cases of Epilepsy." In the discussion that ensued Sir Charles Locock said he had noticed the omission of the paper of a very common cause of epilepsy, viz., dentition. He could not agree with Dr. Ashburner that all cases of the disease could be cured by the removal of the teeth; but he had certainly seen the affection cured in more than one instance by removing overcrowded teeth.

Case VII.—Dr. Ramskill publishes† the following: "A boy, 13 years old, has had frequent attacks of epilepsy for the last eighteen months. Latterly, his mother noticed that some days he rubs his left cheek, complaining of faceache, after which the fit follows. On examining the mouth, there is to be seen a molar tooth considerably decayed, with a swollen gum around it and partly grown over into the cavity; it is not very tender to the touch, and the examination does not give rise to toothache. On questioning, I find the sensation which the boy experiences before the fit does not seem to be one of pain, but rather of indefinite uneasiness. He al-

ways has a fit the night this comes on. Has never felt it during the day; it is always about seven or eight o'clock. I desired the mother to have the tooth extracted, and ordered a simple saline, with $\frac{1}{4}$ grain of belladonna, to be taken twice daily. This was in June. The tooth was extracted the next day. I saw this boy once a fortnight from that time for four months, but he had no recurrence of the fits. In this case I believe an unfelt aura commenced about the gum surrounding the tooth, and was not recognized till some degree of inflammation arose, and thus a modification of pain became associated with the aura and directed attention to it."

Case VIII.—Trousseau relates* the case of a patient, a young notary's clerk, under the care of Dr. Foville, who had been subject to monthly attacks of epilepsy for several years. Many remedies had been tried in vain. Dr. Foville suggested the extraction of some carious teeth which ached constantly. The suggestion was acted upon, and from that day the fits disappeared.

Case IX.—Dr. Garrett related the following case before the Suffolk District Medical Society, and was reported by Dr. Page:† "A man, aged 40 to 50 years, had suffered with his teeth for years; these had been extracted and artificial ones substituted. He became paralyzed in the muscles of his face and tongue. There was a peculiar drawing of the mouth, from which the aura epileptica came just previous to the fit; the tongue was inclined to fall back in the mouth; he was fearful of swallowing it. In investigating the case Dr. Garrett removed the false teeth, and found the soldering discolored; he went back to his dentist, had a rubber plate made, and had no further attacks of epilepsy; the paralysis gradually subsided."

Case X.—W. H. Waite reports‡ the case of a young woman, aged 18, who consulted him for treatment for a carious condition of the incisor and canine teeth of the upper and lower jaws. The teeth had been diseased for four years,

**Lancet*, June, 1857.

†*Med. Times and Gazette*, 1862, vol. ii, p. 216.

**Clinical Medicine*, New Sydenham Soc., vol. i.
†*Boston Med. and Surg. Journal*, November 8, 1860.

‡*British Journal of Dental Science*, 1863.

and were very sensitive. For three years the patient had been subject to epileptic attacks, which were at first quite slight, but had gradually increased in severity. After removal of the diseased teeth and filling of others, the epileptic fits entirely ceased. After some months the fits returned attended with sharp, shooting pains in the alveolus. Examination showed that several other teeth had become decayed. These were removed, and from that time on there was no recurrence of the epilepsy, and the patient increased in health and weight.

Case XI.—Dr. Nathan Field reports* the case of a boy, about 5 years old, who was suddenly seized with an epileptic fit. In two weeks he had a second attack, which passed away after a few minutes. In the course of the next ten days it was estimated that the boy had a thousand convulsions, occurring every few minutes. No cause could be assigned. It was finally observed that before the appearance of the convulsion there was a twitching of the muscles of the left side of the face. Finally, after a severe convulsion, while the child was unconscious, he drew up his upper lip, when it was observed that the canine tooth had, instead of causing absorption of the deciduous tooth, pushed it outward through the alveolus, the gum, and into the lip. The tooth was removed, and in less than an hour the convulsions subsided and never appeared again.

Case XII.—Mr. Canton related† the history of the following case: A strong, healthy boy, aged 19, who had become the subject of epileptic fits, applied to Mr. Canton for treatment. As the cause of the fits could not be ascertained, it occurred to him that they might be due to the eruption of a wisdom tooth. The gum was freely incised, and the crown of the tooth laid bare. From that time the fits never returned.

Case XIII.—Mr. Henry Moon related‡ the following case: "The patient, a girl, aged 21, was brought as an out-

patient to Dr. Fagge, at Guy's Hospital, and he, finding that her teeth were in a very bad state, sent her to Mr. Moon. She had suffered from fits since she was fourteen, and lately they had become so frequent as to reduce her almost to the condition of imbecility. On examining her mouth, a third molar was found in process of eruption; this he lanced freely. Some carious teeth were extracted and others were filled. Treatment by the bromides of potassium was ordered at the same time. The result was, that the fits entirely ceased from the day of her first visit to the hospital. The girl recovered her intellect, and although she was kept under observation for several months, she had no return of the fits."

Case XIV.—Dr. Schwartzkopf reported* the following case in the *Deutsche Monatschrift für Zahnheilkunde*, 1886: "A man, aged 27, suffered severe pain in the right upper central incisor, which was carious, and consulted a dentist, who filled it. Soon after this a swelling appeared in the hard palate, where an opening formed. The patient was now easy, but the tooth continued loose and tender when touched. The fistula also remained patent and discharging. Ten days after the tooth was filled the patient had an epileptic attack, and these recurred at gradually shorter intervals until, at the end of eighteen months, they occurred several times a week. During this time the patient was treated with bromides, atropine, etc., but without results. The tooth was then extracted, the fistula healed, and the fits ceased, and, at the time of reporting, the patient had remained free from them for four years."

The two following cases are reported† by Dr. Liebert:

Case XV.—Emil S., aged 25, in good health and no neurotic tendency, began to suffer with attacks of vertigo in February, 1883. These attacks lasted several minutes, after which the patient appeared perfectly well. On one occasion, however, the vertigo was so severe that he was compelled to sit down

* *Western Journal of Medicine*, 1869.

† *Proceedings Odontological Society of Great Britain*, 1880.

‡ *Proceedings Odontological Society of Great Britain*, 1882.

* *Journal British Dental Assoc.*, 1886.

† *Deutsche Medizin. Wochenschrift*, September, 1885.

to keep from falling. On one occasion he lost consciousness. By April 25, the attacks had greatly increased in severity. On this day he had had such a severe epileptic attack that Dr. Liebert was called in. The patient had been lying on the floor for fifteen minutes wholly unconscious and most of the muscles of the body in a state of tonic contraction; the pupils were of medium width and insensible to light; there was also a fresh wound of the tongue. After careful inquiry, it was learned that just previous to the attacks the patient experienced a peculiar tickling or crawling sensation in the tongue, an inability to speak words distinctly, and some involuntary movements of the tongue. Immediately after there followed the giddiness, the fall, unconsciousness, etc. Despite large doses of the bromides, the attacks increased in frequency and severity. Finally, in June, he began to suffer with toothache. Examination of the mouth revealed several carious teeth, one of which was very sensitive to percussion. This was extracted, and from that moment all peculiar sensations and motions of the tongue ceased, and there has not been in the past two years a single epileptic seizure. This patient had in the four months several hundred attacks of vertigo and eighteen or twenty typical epileptic convulsion.

Case XVI.—Young man, aged 35, cabinetmaker. Began having epileptic attack on February 3, 1862, which came on almost daily and with increasing severity. On March 5, he had twenty-three seizures. With the exception of toothache he had never been sick. Repeated inquiries elicited the information that from December, 1861, the use of his tongue was for some seconds, or even minutes, frequently rendered difficult, and this fact was coupled with a certain feeling of illness or vertigo. In the attack of February 3, 1862, these symptoms were exceptionally severe, the tongue being drawn to the right side and executing spasmodic movements. Immediately thereafter he became unconscious and fell to the floor in convulsions. The tongue symptoms were usually premonitory of the frequent subsequent attacks. Owing to the fact that the aura appeared to be

connected with the mouth, it was determined to seek for the cause in that locality. As he had had toothache occasionally, several carious teeth were removed. The patient at once declared that he felt an unwonted freedom from a former oppressive feeling, and that he believed he would have no more of the seizures. His conjecture was correct, for he remained free from them from that time forth. This patient had epileptoid vertigo for three or four months and severe epileptic attacks for thirty-eight days.

CLINICAL NOTES.

BROMINE IN CROUP.—Prof. Howell has known of a number of instances in which a drop of bromine, with each dose of bromide of potassium, acted well in throwing off the membrane in croup.

DYSPEPSIA MIXTURE.—For chronic gastric catarrh, Prof. Gerhard highly recommends this *mistura dyspeptica*:

R Foliarum sennæ.....3 ij
Puly. rhei.....gr. xl
Ft. infusion with 3iv water, and add
Vini ipecacuanhæ.....f 3 ss
Ext. hydrastis Canadensis fld...f 3 jss
Potassii carbonatis.....3 j

Sig.—Take a dessertspoonful half hour before eating, in water as hot as can be borne.

PROGNOSIS IN CONVULSIONS.—Convulsions following burns in small children are apt to prove fatal. I have never known a case of scarlet fever to recover in which a convulsion has occurred after the appearance of the eruption.—*Prof. Atkinson.*

CYSTITIS.—Dr. Parish established an artificial vesico-vaginal fistula in a woman whose urethra had been dilated three times in the past year for cystitis, probably specific, with almost constant dribbling of the urine. He claims that the hollow button, inserted between the cut edges, causes aggravation of the cystitis, and he prefers stitching them with silk, allowing the sutures to remain for at least ten days.

FOR FLATULENCE DUE TO FERMENTATION.—In a case of windy dyspepsia, due to indigestion of starches, Prof. Waugh simply prescribed diastase, with excellent results.

HYOSCYAMINE FOR ASTHMA.—Dr. Musser recommends hyoscyamine, gr. $\frac{1}{320}$, every three hours, internally; or where a rapid effect is desired, gr. $\frac{1}{120}$ to $\frac{1}{20}$ hypodermically, for the spasmodic asthma of emphysema. He uses, in addition, nux vomica as a respiratory stimulant, and terebene or oil of eucalyptus for the accompanying bronchitis, diminishing the hyoscyamine as the other drugs are increased.

IN FRACTURE OF THE CLAVICLE, Dr. White claims that the four-tailed bandage fills all the indications, if the patient can be kept in the supine posture, with the head lowered. The elbow rests in a small hole cut in the centre of the bandage, two tails, 10 inches wide, encircle the chest, and the other two, 4 inches wide, are carried round the shoulder, opposite the fracture. No pads are used.

SOAPS.—Prof. Shoemaker says that soda soaps as a rule are more or less irritating than potash soaps. Great caution should be exercised in the selection of a toilet soap, for in order to be entirely harmless these should have a neutral reaction. He exhibited to the class a number of principal toilet soaps, which he had gotten at different places in the city, and which he had given to an expert to be tested. With two exceptions, all these soaps contained more or less free alkali. This free alkali, he said, was, especially in young children, the cause of many skin eruptions, such as simple erythema, seborrhœa, pustular eczema, and the like.

Prof. Shoemaker then enumerated the different medicated soaps and their particular values. Alum soap is good in hyperidiosis, in pustular eczema, and in chafing. Boro-glyceride soap is useful in acne, seborrhœa, and for rough skin. Chamomile soap is mildly stimulating, excellent for bromidroses, intertrigo, and is the best soap for dandruff. Naphthal soap is the very best application for animal parasites on any part of the body, and also in bromidroses. Salicylic acid soap is a non-irritating antiseptic soap, and is good for toilet purposes. Corrosive sublimate soap is serviceable for removing freckles, chloasma, rough skin, for changing a muddy

to a clear complexion, and in all kinds of itching.

In the case of a child seventeen months old, very low with marasmus, accompanied by diarrhœa and vomiting, Prof. Waugh stopped its milk and substituted predigested food. The vomiting and diarrhœa he treated by sulphocarbonate of zinc, gr. $\frac{1}{4}$ every two hours. The child is improving rapidly.

STRICTURES.—Dr. McConnell believes that the only satisfactory treatment for strictures in the pendulous portion of the urethra is to cut them, and for the first three inches he prefers a bayonet-shaped tenotome. This he slips along the floor of the urethra to an inch beyond the stricture, and on drawing out the knife cuts the stricture about a line in depth, and the mucous membrane an inch before and behind it. He then enlarges the urethra by divulsion, puts the patient to bed for several days, keeps the urine alkaline (with sodii bicarbonas gr. x, and morphinæ sulphas gr. $\frac{1}{8}$), and afterwards passes bougies for some time.

IN CASES OF IRITIS, Prof. Keyser at once gives gr. $\frac{1}{12}$ bin-iodide of mercury, with gr. v iodide of potassium, three times a day, and applies hot stupes of hamamelis for the pain. If no benefit be noticed in three or four days, he drops the mercury and tries salicylic acid gr. xx ter die. If a condyloma is detected on the iris, he is sure of specific cause.

FOR "VAGUE PAINS."—Prof. Atkinson considers oil of gaultheria a most valuable remedy. He gives it till ringing in the ears and vomiting occur. For a girl of seven, weak, pale, anæmic, and troubled with "vague pains," he gives

R Olei gaultheriæ.....f3ij
Mucilaginis acaciæ,
Syrupi simplicis.....ââ f3iss M.
Sig.—3j every three hours.

In addition, he puts her on a tonic course of cod-liver oil, iron, gin, wine, and strychnia.

IN MELANCHOLIA, Dr. Pepper claims excellent results from hyoscyne, with the ferruginous tonics, nutritious diet, and complete change of the patient's surroundings.

INCONTINENCE OF URINE.—To a boy of five years, with incontinence of urine, Prof. Atkinson gave

- R Extracti ergotæ fluidi.....f3j
Tincturæ nucis vomicæ.....gtt. xvj
Syrupi simplicis.....f3iss
M. Sig.—Teaspoonful ter die.

The dose to be doubled in a day or two, if necessary.

SODIUM CHLORIDE AS A PROPHYLACTIC AGAINST GERMS.—Prof. Woodbury advises a plentiful use of common salt in one's food, for he thinks that it acts as a preventive to zymotic diseases, and that, when such diseases do come, they are much lighter in persons accustomed to using salt.

HAVE a thermometer in the sick-room, and see that the temperature is kept at from 70° to 75° Fahrenheit. Keep perfumes out of the sick-room; they soon have a stale odor and are offensive to the patient. Keep visitors out, also; they are still more so.—PROF. ATKINSON.

FOR TONSILLITIS AND PHARYNGITIS.—Prof. Woodbury says that glycerites of tannic and of gallic acid are valuable preparations for the physician to have in his office, to serve as applications by brush or in the form of a spray to sore throat, inflamed tonsils, and the like, and should have been included in the last revision of the Pharmacopœia.

MORPHINE HABIT.—Dr. Wilson showed a case of morphine habit at the Philadelphia Hospital, January 14, 1888, in which one drachm of morphine only lasted the patient four or five days. The drug was originally prescribed by a physician for the relief of pain in hip-joint disease. In treating these cases it is indispensable that the physician himself administer any morphine required, as few nurses can resist the pitiful appeals of a victim of this habit while under treatment. The treatment must be largely moral in such cases.

SHOULDER DISLOCATION.—After several vain attempts to reduce a sub-glenoid luxation by rotation, Dr. Janney succeeded by making traction directly away from the shoulder. He declared that when the head of the humerus is lodged beneath the glenoid process of the scapula, rotation is often useless.

PENNSYLVANIA HOSPITAL.—Dr. T. G. Morton performed a laparotomy on a man, on December 29, 1887. The case was one of gunshot wound. The bullet was found and extracted. Four days after the operation the patient was doing well.

ERYSIPELAS TREATED WITH JABORANDI.—A poor woman was brought into the Medico-Chirurgical Hospital, about a week ago, with an enormous peri-typhlitic abscess, which had been neglected shamefully. It pointed in the groin and on the thigh. The whole surrounding region was erysipelatous, and the disease had also appeared on the face. Fluid extract of jaborandi was at once given by Prof. Waugh in doses of \mathfrak{m} xx every four hours; and even before the abscess was opened the erysipelas was under control. Enormous quantities of fetid pus were evacuated from the abscess which had burrowed down into the glutei. It is very doubtful if recovery will ensue; the woman is being supported with peptonoids, wine, iron and quinine.

TYPHOID FEVER.—The general method adopted at the Jefferson Hospital by Dr. Jas. C. Wilson in the treatment of typhoid or enteric fever is to give calomel (gr. viiss-x), and sodium bicarbonate (gr. x) at a single dose, at night, to be repeated once or twice, if the case is in its first week; if in the second week it is not repeated, and after the tenth day of the disease it is only administered if required by the state of the bowels. Diarrhœa, however, is not to be considered as a contra-indication to the mercurial. When the evacuations are excessive suppositories of opium (aq. extract gr. j) are used at night. Enemata of thin gruel may be occasionally resorted to for the relief of constipation. Cold sponging of the body is resorted to twice in the twenty-four hours as a routine measure; hyperpyrexia requires more frequent applications. Carbolic acid (gr. j) and tincture of iodine (gtt. ij) are given from the beginning, every two hours during the day; every three hours at night. Antipyrine (gr. x-xv) is given in a single dose when the temperature is over 104°. Alcohol is not necessarily a part of the treatment.

TRANSLATIONS.

MANAGEMENT OF IMMATURE AND DELICATE INFANTS.—Berthod, discussing the management of infants prematurely born, reaches the following conclusions:

Such infants are hypothermic, and obtain nutriment with great difficulty. The *couveuse* is the best agent against hypothermia. It is necessary to regulate the temperature so that the child's rectal temperature, taken while in the *couveuse* at least twice a day, should oscillate between 37.5° and 35° C. as the extreme limits. Gavage is his choice in feeding these children, the quantity of fluid given being suited to the stomachal capacity in each case. The food consists of the mother's milk, that of a wet-nurse, or of milk, the chemical constitution of which approaches as nearly as possible, naturally or artificially, to the mother's milk. His results are claimed to be highly satisfactory.—*Revue de Ther. Méd. Chir.*

PRECAUTIONS CONCERNING LAUNDERING IN HOSPITALS.—Tourneux (in *La Normandie Médicale*) calls attention to the new duties devolving on hospitals through the acceptance of the modern germ theory. He advises the following method of purifying bed linen and wash clothing: (1) Steeping in alkaline water at 50° C., with agitation for fifteen minutes in tubs used for this purpose alone. To the water is added sulphate of iron, in the proportion of three kilos to the cubic metre, before the water is drained off. (2) Heating with steam in a close receptacle, where the heat can be raised to at least 115° C. This exposure should last at least two hours.

LACTIC ACID FOR EAR DISEASE.—Aysagner (in *Revue Mens. de Laryng.*, etc.) recommends lactic acid in aural suppurations. He applies it at first diluted to one-fifth, and rapidly increases until the pure acid is used. It destroys granulations, but has no bad effect upon healthy tissues.

ANTIPYRIN IN DIABETES.—Dr. Gøerner tried antipyrin for a gentleman sixty years of age, who had already used ordinary remedies (through which the amount of sugar, originally 6 per cent., was diminished to 2.98 per cent.,

and even less). The success was very marked; after 3iiss had been taken, Trommer's test showed scarcely any reaction. The remedy was continued for a few days longer (45 grains per day), and in ten days after commencing treatment the sugar had entirely disappeared.—*Therapeut. Monatschrift.*

COCAINE IN WHOOPING COUGH.—Labbé praises the local application of cocaine in whooping cough, but finds that of iodine still more efficacious. He applies the latter agent diluted to one-tenth, or one-fifth, on cotton, to the glottis.—*Revue de Ther. Méd. Chir.*

A HIGHLY ESTEEMED CAUSTIC.—Felix, of Brussels, recommends the following paste:

Powdered starch.....	37 parts.
Wheat flour.....	112 "
Corrosive sublimate.....	1 "
Dry chloride of zinc.....	110 "
Iodol, pure.....	10 "
Croton-chloral.....	10 "
Bromide of camphor.....	10 "
Acid carbolic, cryst.....	10 "

Mix in a glass mortar the previously pulverized substances, add a little distilled water, drop by drop, until a homogeneous paste is formed. Do not handle with damp hands.

The pain of this application is said to be quite supportable; the eschar is hard and well limited, and detached easily; the action is markedly antiseptic, and powerfully hemostatic. It is easily managed; the application can be made with precision; the paste is not fusible or deliquescent, and can be handled without injury.—*Revue de Ther. Méd. Chir.*

IODOL IN TUBERCULOSIS AND OTHER DISEASES OF THE LARYNX AND UPPER AIR-PASSAGES.—In the *Münchener Medicinische Wochenschrift*, 1887, No. 38, Prior contributes the results of his experience with iodol in diseases of the nose and throat. He used it in the form of fine powder, blown into the air-passages once or twice daily. Although absolute recovery was secured in comparatively few cases of severe form (possibly the iodol being no more efficient in these than iodoform or lactic acid), still the fact that the application is not only painless, but is pain reducing, while efficient and free from all danger, constitutes it the best for the general practitioner.—*Centralblatt für Chirurgie.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEB. 1, 1888.

EDITORIAL.

INSTITUTES OF "CHRISTIAN
SCIENCE!"

THE public press announces that the St. Louis Court of Appeals has refused to grant the application of some individuals with peculiar views upon the subject of disease and therapeutics; not that the possession of the views in question is illegal, but because the alleged Christian Scientists expect to engage, and indeed are now actually employed, in the practice of medicine wherever they can find patronage. We also learn from the same source that Judges Arnold and Wilson, sitting in the Court of Common Pleas, have given a charter to the "Philadelphia Institute of Christian Science." The charter was granted under the corporation act of 1874, which provides for the formation of corporations "not for profit."

A Christian Scientist, according to recent use, or misuse, of the term, is one who claims to cure disease without drugs by miraculous means. If our Judges believe that the new school of mind or faith-cure professors do not practise medicine and are actuated by pure philanthropy, they are very much in need of information upon the subject. Perhaps the knowledge that the Registration Act of 1881 would render them amenable to the law, in case they engage openly in practising medicine, made the Court regard the application as harmless, or at least as not fraught with great danger.

We cannot, however, close our eyes to the fact that in the kindred case of homœopathy the Legislature has de-

manded evidences of medical preparation and fitness as pre-requisites to receiving the license to practise medicine. No such medical knowledge is contemplated in the philosophy of the Christian Scientist. He claims that the days of miracles have not yet passed; he relies solely upon supernatural agencies in treating the sick and makes a boast of his ignorance of medical lore and of his own incompetence! Is such an individual to be trusted to treat serious cases of disease: strangulated hernia; typhoid fever or membranous croup for example?

In a free country, like this, one of the dearest rights of the citizen is to have his own doctor and to change the method of practice at his pleasure. At the same time the law recognizes a responsibility on the part of the community and to some extent seeks to shield the sick man from the unfortunate consequences of his ignorance or prejudice, by refusing to grant the right to practise except under certain restrictions. The laws for the regulation of medical practice have primarily in view the object of protecting the community, and *not* the protection of the members of the medical profession; although it is true that anything which raises the standard of learning and ability among medical men is indirectly advantageous, because it gives (and rightly, too), the profession a higher position in the esteem of the community. This is very far from being a trade's-union.

The fad of so-called Christian Science, according to our views, will have a short existence. Modern medicine has a *raison d'être* which it demonstrates day by day to those who keep their eyes open and their judgment unclouded by prejudice. Some, however, will not be convinced that a glaring fallacy underlies this new development

of psycho-therapy until they learn in the school kept by Dame Experience, which, by the way, they are properly qualified to attend, since they will learn at no other. *Docet experientia stultos.*

F. W.

SHOULD THE MEDICAL STUDENT BE AN OUTLAW?

THE reputation of the medical student is notorious and traditional. Other people shun him; the boarding-houses don't want him, and, if he gets into one, the other boarders move out. He is popularly supposed to spend his days in dark and nefarious study and his nights in riotous living—

"Vexing with mirth the drowsy ear of night." Granting that there is a little substratum of reason for this belief, it may be worth while to ask why it is so, and whether or not the medical student is necessarily an outlaw.

Most of these young men come from the country. To many it is their first experience of the city; perhaps their first prolonged absence from home. Cutting loose from home ties, they are thrown at once into the temptations of a city life. They have scant opportunity to make acquaintances, save with those whom they may meet in their boarding-houses.

This is of all others the time when church influences would be most valuable. Our city churches generally welcome strangers, but these youths are often too shy to enter, uninvited, these magnificent places of worship.

Man is gregarious, and naturally seeks for associates; but for society the student has few opportunities. The exclusivism which characterizes society, with the pride, which is mainly shyness, of the countryman, sets up an invincible barrier against a mutual acquaintance which might enlarge the ideas of the one and smooth the manners of the other.

But the doors of sin ever stand widely open. If there be little opportunity of forming desirable acquaintances, the other sort are quite accessible.

When the parents of these young men send them to the medical college, they believe that the faculty will take some personal interest in their pupils; that the latter are constantly under their supervision. The fond mother sends her son to Professor Blank with a letter from a former student, and she believes that their relations are much the same as those of the student and the preceptor with whom he has been studying. Did she but know that too often all interest ceases when the student has paid his fees, and the next time the consciousness of his existence occurs to the professor is when, some years later, the student presents himself for final examination, she might be even more apprehensive than she usually is.

It may be too much to ask the faculties to open their homes to their students; but they should certainly interest themselves in the welfare of those who are directly placed in their charge, as this is a responsibility which they cannot escape. Students who have religious ties at home can be encouraged to enter city churches, or to attend the social meetings at the hall of the Young Men's Christian Association. Some churches also have social meetings to which students could be welcomed if they were introduced.

Such measures, in our opinion, are preferable to holding religious exercises in a College, or delivering special "student's sermons," on stated occasions.

W. F. W.

THE ETIOLOGY OF INEBRIETY.

ONE of the most marked advances in pathology of the nervous system of recent years is the recognition of inebriety as a corporeal disorder, of which

the craving for intoxicants is only the most striking manifestation. The inebriate may or may not be a drunkard, but he is never an individual possessing *mens sana in corpore sano*. There is in such persons a disease of the higher nervous centres, characterized by very strong impulse to indulgence in, or craving for, strong drinks. Dr. Norman Kerr, President of the Society, in a recent lecture in the hall of the Medical Society of London, advocated this pathology of inebriety, and described a number of predisposing and exciting causes. Among the former he gave a prominent place to heredity (either alcoholic or insane).

LETTERS FROM SPECIAL CORRESPONDENTS.

LONDON LETTER.

LORD GRIMTHORPE AND THE HOMŒOPATHISTS *vs.* THE QUEEN'S JUBILEE HOSPITAL; THE HENDON COW-DISEASE AND SCARLET FEVER; COW-POX IN ENGLAND; RICKETS; THE VISUAL AND AUDITORY CENTRES; THE TREATMENT OF CORYZA; NEW LABORATORIES; PROF. RAY LANKESTER AND THE VICE-CHANCELLOR OF THE UNIVERSITY OF OXFORD; GRAPHIC RECORD OF CARDIAC SOUNDS, ETC.

I HARDLY know whether I may assume that the fame of Lord Grimthorpe has penetrated so far as Philadelphia; once, as Edmund Beckett, he gained some fame and much wealth as a Parliamentary barrister; later, inheriting greater wealth, he became Sir Edmund Beckett-Denison, and attained notoriety as the "restorer" of St. Alban's Abbey. Quite lately, for some inscrutable reason, he was made a peer by the style of Baron Grimthorpe. But change of name has wrought no change of nature and the signature "Grimthorpe" stands very frequently in *The Times* under letters as vehement, wrong-headed, and truculent as ever appeared above the more familiar signature, "E. Beckett-Denison." For years his hobby has been the restoration of St. Alban's Abbey, one of the

oldest, if not the oldest minster in England, built on the spot where St. Alban, the proto-martyr of England, died; Roman bricks, brought from the neighboring Verulamium, being largely used in its construction. Parts of this abbey, having fallen into ruins, have been "restored," that is to say re-built, by Sir E. Beckett-Denison without the assistance of an architect and the result is terrible. The west front is one of the saddest examples of "bride-cake Gothic" in either hemisphere. His ridiculous pretensions to architectural knowledge were of course exposed by competent architects and his feeble designs severely criticised; but he was not to be turned aside from his dire purpose; and, as he supplied most of the money, the ecclesiastical authorities did not offer any effectual resistance. Now he has turned his attention to the medical profession and has written some furious letters to *The Times* on the "Odium Medicum in Hospitals;" because a young laryngologist who had been appointed to the Queen's Jubilee Hospital, having been discovered to be a homœopathic practitioner, was suspended by the Committee. This is how the retired lawyer writes of the members of another learned profession:

"I have opposed and defeated a good deal of trade unionism in my time—of clockmakers, architects and even of ladies, who all tried to beat me by abdication or secession; and I have lived to see workmen's unions, against which I wrote ten years ago, confess their failure to do a great deal that they expected. I am not frightened of being washed away by black doses from a set of medical conspirators.

Yours obediently, GRIMTHORPE."

By "medical conspirators" we are to understand not merely the members of the staff of the Jubilee Hospital, but every member of the medical profession who is not a homœopath. Lord Grimthorpe appears to think that homœopathy means small doses, but it is also characteristic of his habit of mind that he cannot spell the name of his protégé correctly; it appears always as Milligan, whereas the gentleman's name is Millican! In a previous letter I have mentioned the circumstances

under which the homœopaths established themselves in the Infirmary for Consumption, in Margaret street, London, all the members of the medical staff resigning. "The Queen's Jubilee Hospital" was started nine or ten months ago. It is a complex of many special departments and has a local habitation somewhere in Kensington. London has been growing very fast in this direction, and there is, it must be admitted, a considerable area between St. George's Hospital at Hyde Park Corner and the West London Hospital at Hammersmith; still, Kensington is on the whole a rich district and many thought that the new "Jubilee Hospital" did not meet a very pressing need. However, a staff was got together, and Mr. Kenneth Millican was appointed surgeon to the Throat Department. The committee subsequently passed a resolution to the effect that no medical officer of the hospital should be a homœopathic practitioner, or connected with a hospital where homœopathy was the required or an optional mode of treatment, and thereupon suspended Mr. Millican on the ground that he was connected with the Margaret Street Infirmary. The suspended surgeon disputed the competency of the committee to act without appealing to the governor or subscribers and the Court of Queen's Bench accepted this view and has granted Dr. Millican an injunction against the committee, requiring it not to interfere with him in the discharge of his functions as surgeon to the hospital. The committee has appealed and Dr. Millican has undertaken not to enforce the injunction pending the appeal. If the appeal is rejected the medical staff have expressed their intention of resigning and the hospital may, not improbably, collapse, as it is not at all certain that the believers in homœopathy will care to support another hospital in London. This is what Lord Grimthorpe has called boycotting and odious trades-unionism; and it is his interposition which has given the incident most of any importance which it may possess. His letters to *The Times* are wrong-headed, illogical and very ignorant; but they are most amusing. He slashes about him in a

most boisterous and entertaining fashion, and has a knack of picking up any slight flaw in an opponent's argument which is very irritating to the latter, but rather good sport to the public. So far his opponents have been no match for him, and the general public are enjoying a good laugh at the expense of "the doctors," who, though they have a good case, have as yet found no competent champion. All this, "though it may make the unskilful laugh, cannot but make the judicious grieve."

Another topic, which is exciting much interest just now, is the controversy between Dr. Klein and Professor Crookshank, as to the connection between scarlet fever and a certain cow disease, which has been, for convenience, generally termed the "Hendon Cow Disease." The announcement that Prof. Crookshank had a paper on the subject, drew together such an audience at the meeting of the Pathological Society as I do not remember to have seen for years. Prof. Crookshank stated broadly that the Hendon cow disease was not scarlet fever, but true Jennerian cow-pox. Dr. Klein in his reply hardly disputed Prof. Crookshank's discovery of cow-pox, but emphatically denied that the latter's cows, which he (Dr. Klein) had seen, were suffering from the same disease as the Hendon cows. Moreover, he declared with equal emphasis, that the micrococcus found by Prof. Crookshank and by him identified with Dr. Klein's *micrococcus scarlatinæ*, was a different organism. It is not easy to arrive at a decided opinion on the points in dispute. Professor Crookshank was, undoubtedly, a little hasty in bringing his discovery forward before he had an opportunity of performing a *post-mortem* examination, but I cannot think that Dr. George Buchanan was justified in calling his arguments "flimsy." I believe that as a matter of fact the cases of cow-pox observed by Professor Crookshank, on a Wiltshire dairy farm, were part of an epizootic started by a cow brought from the very same dairy farm near Derby, as were the cows which started the epizootic at Hendon. As to the differences which Dr. Klein describes between his micrococcus and Professor

Crookshank's, they are of a very minute kind; but, of course, however minute, if constant their specific value will have to be admitted. It ought to be stated that this is not merely a controversy between two scientific investigators; behind each is a government department; Dr. Klein is employed by the Local Government, which is the Board of Health for disease as it affects man; Professor Crookshank is employed by the Agricultural Department of the Privy Council, which is the Board of Health for disease as it affects domestic animals. There are people who think that it is not a good plan to have two Government Departments, one to suppress epidemics and another to suppress epizootics; perhaps some day the public will wake up to the fact that man is an animal whatever else he may be, and that infectious diseases do not respect the hard line of demarcation which we have drawn between ourselves and the rest of the animal world. The publication of Dr. Klein's researches caused a scare among the dairy farmers. They knew, or thought they knew, that this cow disease was very common among milch cows; and, not unnaturally, they feared that if it became well known and established that scarlet fever was liable to be communicated to human beings by the milk of cows suffering from this disease, the milk trade would be seriously affected. The Agricultural Department took the question up, and Professor Brown, who is the head of that department, enlisted the services of Professor Crookshank, of the Bacteriological Laboratory at King's College, London.

The re-discovery of cow-pox in England is an interesting and rather instructive event; the disease of the udders which Professor Crookshank says is cow-pox, according to the veterinary surgeon, is not only common at the present time in England, but has existed here for many years; it is true that cows are liable to many different kinds of vesicular eruption on the udder; there are the yellow-pock, the blue-pock, and the white-pock, to mention only those called pocks. This fact was well known to Jenner, who gave special directions for recognizing the true cow-pox; in a letter which he addressed late in life to

(if I remember rightly) a medical paper published in America, he gives an almost pathetic account of his early disappointments due to his not having at first appreciated this fact. It is just possible that since vaccination has been made compulsory the milkers may be less susceptible to cow-pox, and that may account for the disease having been overlooked. When vaccination from the calf was commenced in this country we had to go first to the Hague and afterwards to the Laforêt case (near Bourdeaux).

It is, I believe, the general experience that rickets is becoming very much less frequent in London, and the cases which are seen are much less severe than those we were accustomed to see a few years ago. It is, of course, still a very common condition and severe cases are still seen, but it is a less important factor in the causation of ill health in children than used to be the case.

For this happy result some credit must be given to improved sanitary conditions; but some, also, to the steady propaganda which the children's hospital and the out-patients' departments of the general hospitals have carried on for many years. Compulsory education has perhaps done something by teaching the mothers of the infants of to-day and thus raising the general standard of intelligence; the majority of these can now at least read the printed directions for feeding the baby, which are distributed broadcast. W. Bland Sutton has shown that monkeys and lions confined at the zoological gardens in London suffer in large numbers from rickets in so severe a form that a very considerable mortality is directly produced by it; in the young monkeys the softening of the vertebral column led to such a sharp bend that the spinal cord was compressed and the animals died of paraplegia; in lion-cubs the mode of death was different and certainly very curious. The tentorium cerebelli in carnivora becomes ossified, but never normally exceeds the thickness of writing paper; when the skull is thickened by rickets, the bony tentorium shares in the general enlargement, impresses the vermiform appendix of

the cerebellum downwards, and so occludes the fourth ventricle and leads to fatal hydrocephalus. Sir James Paget said that he had never seen any evidence of rickets in the bones of lions shot by sportsmen in their native haunts and preserved in museums. Mr. Sutton said that the only lion's bones in the Hunterian collection which showed any trace of rickets had probably been obtained by Hunter from menageries in England. One of the first services which the comparatively new science of comparative pathology has been able to render, has been to demonstrate rickets as essentially a disease of civilization; that there is no constant or direct connection between it and syphilis in the parent, and that there must be other factors in its causation at least as important as the constituents of the food.

A paper by Dr. Sanger Brown and Professor E. A. Schafer, F.R.S., on the functions of the occipital and temporal lobes of the monkey's brain, was recently read at the Royal Society. These investigators found that removal of one occipital lobe produced hemipia; and the removal of both lobes permanent blindness of both eyes; and that these effects were produced without involving the angular gyrus in the lesion. They also found that not only the superior temporal gyrus, but even the whole temporo-sphenoidal lobe can be removed without producing any appreciable permanent effect on hearing.

In the number of the *PHILADELPHIA MEDICAL TIMES* which has just reached me, I see a note stating that Prof. Woodbury recommends a purging with cascara, hot drinks, confinement to the house for a day or two, and quinine for several days after, as a good treatment for coryza. This impels me to give a method recommended to me a good many years ago by a well-known physician. It is, I know, very old-fashioned; but as I have tested it again and again, and never without some benefit, it may be worth giving. When the cold was coming on, my friend gave a dose of opium at bedtime. His prescription was generally:

R Liq. opii sed. (Battley)... ℥viii-xii
Acidi citrici.....gr. xii
Aquæ.....ad f 3 i M.

Fifteen grains of bicarbonate of potash were added and the mixture drank in effervescence; on the following morning a double seidlitz powder, or a dose of some other mild saline aperient, was ordered. The patient was allowed about his ordinary avocations by day, and at night a rather smaller dose of opium was given, followed by another saline draught on the second morning; the second dosing is not always necessary, and a third very rarely. For ladies, who can often stay indoors with less inconvenience than men, Dover's power, gr. x, at night, followed by a brisk saline purge in the morning is, perhaps, preferable.

When the Royal College of Physicians and the Royal College of Surgeons bought conjointly a piece of ground on the Thames embankment, the area thus placed at their disposal was larger than was necessary for the erection of an Examination Hall. Upon this extra space it is now proposed to erect laboratories and a theatre to seat about four hundred. The purposes for which the laboratories are to be devoted is not yet settled, but it is believed that some at least will be available for independent original research.

Professor Ray Lankester, the comparative anatomist, has been dismissed from his post as examiner in Natural Science to the University of Oxford, because he did not attend a *viva voce* examination. The vice-chancellor of the university took deep umbrage at this, and matters were not made smoother by Prof. Lankester. It is said that some of the arrangements for examinations at Oxford are obsolete, and this may well be the case; but Prof. Lankester is hardly likely to get them reformed by defying Dr. Jowett, who is all powerful at Oxford. The personal matter at issue has been submitted to the arbitrament of the law. A rule has been granted, and the university must show cause why Prof. Lankester should not be restored.

Dr. Byron Bramwell has described to the Royal Society of Edinburgh an apparatus devised, with the skillful assistance of Dr. R. Milne Murray, for recording by the graphic method the relations of cardiac sounds to cardiac movements. Dr. Bramwell started with

the idea that he might be able to obtain automatically, a graphic reproduction and registration of the cardiac sounds by means of the phonograph. In the present state of that instrument, however, it is incapable of giving such tracings; and, though Mr. Edison has promised to look into the problem, it is not likely to be speedily solved. As an alternative method, a rather elaborate apparatus was put together, in which an observer listening to the heart with a binaural stethoscope, recorded the precise moment when the murmur or cardiac sound was heard, by pressing on a Morse's key, which made an electric circuit in communication with a lever which marked on a revolving drum; a cardiographic tracing was taken on the same drum, upon which time-marker was marked seconds and fractions of seconds. The element of uncertainty in this combination is the so-called "physical loss;" that is to say, the interval of time which elapses between the murmur being heard and the button being pressed by the forefinger. With sounds at irregular intervals, this was found to be in Dr. Bramwell one-fifth second; but where the movement was rhythmical, there was no physical loss, that is to say, the observer's brain, his auditory and arm centers, took on a rhythmical action, and the pressure was made by the forefinger on the button, not in response to a fresh stimulus emanating from the auditory nerve, but at the moment when from previous experience of the rhythm the brain had learnt to expect a fresh auditory impression. Thus the signs of the auscultator, when listening to the second sound, exactly corresponded to the point in the cardiographic tracing, where the second sound is known to take place. It is intended, in the first instance, to use the apparatus for investigating the exact time-relations of the presystolic murmur.

Sir George Burrows, Bart., who died recently, was the rector of the profession in England. He took a good degree at Cambridge, and was afterward Fellow of Cain's College. He married a daughter of John Abernethy, whose colleague he became at St. Bartholomew's Hospital. He enjoyed for many years a large practice as a consulting

physician, and obtained every post of honor to which a physician in London could aspire.

The Crown Prince is now in the enjoyment of better health, both locally and generally, than for more than a year past. Sir Morell Mackenzie is said now to regret his acquiescence in the unfavorable diagnosis published after the consultation with his German colleagues at San Remo, in November. He now entertains serious hopes that the whole trouble has been due to perichondritis or some other inflammatory condition.

DAWSON WILLIAMS.

January 2, 1888.

ABSTRACTS AND GLEANINGS.

OPERATIONS FOR THE RADICAL CURE OF HERNIA.—The papers upon this subject read at the last meeting of the British Medical Association are published in full in the journals of December 3d and 10th.

The following is an abstract of the principal contributions to the discussion:

William Thornley Stoker advocates the open method of operating. He objects to the practice of using silver sutures, which are allowed to remain permanently. The best and most enduring closure is due to the exudation and organization of lymph, assisted by the twisted sac acting as a plug.

Kendal Franks prefers the dissection method, claiming that by this means a perfect cure is obtained in the majority of cases; no truss being required subsequently. He operates even in young men and where the hernia is small. In older men, who have learned to keep their hernias in restraint and suffer little discomfort, he does not advise interference.

His operation is as follows: The incision is made above, but parallel to the inguinal canal. The rings are cleared with a blunt instrument, and the canal examined. If the sac and its contents have slipped back into the abdomen, the rings and canal are at once closed. In old cases, with thick and adherent sacs, he clears the sac, opens it, and passes his finger into the internal ring. He then passes the silver

wire through one pillar and one side of the sac, then the needle through the other pillar and the other side of the sac, threads it with the same wire and withdraws it. The fastening of this suture closes the ring and obliterates the sac. Two wires are used. Below the suture the sac is excised. If the cord be spread out on the sac, it is not dissected off. Here the sac is divided across, leaving sufficient to form a tunica vaginalis, which is turned down and sutured. The proximal portion is fixed in the canal.

In closing the upper part of the ring, he passes the silver wire straight through the aponeurosis of the external oblique, directly over the internal ring. The needle, armed with the wire, then picks up part of Poupart's ligament, and is made to appear through the canal, when the wire is caught and the needle withdrawn. The unarmed needle now passes through the external oblique aponeurosis as before, and at a point corresponding with the other side of the ring passes through this pillar, is brought out the canal, threaded with the wire and withdrawn. Before this suture is twisted, a second one is passed at the lower end of the ring in the same manner. The third suture closes the external ring. Mr. Franks claims for his advocacy of silver wire the positive force of experience. He has never known it to do harm. In closing the wound, he uses buried sutures, sewing the divided tissues together with cat-gut.

The skin wound is brought together with an oblique suture, with a slight pucker at the upper angle for drainage. A drainage-tube is seldom required, and the first dressing is not disturbed for ten days.

Arthur E. Barker does not attempt a radical cure unless there is some special reason for abandoning trusses. In inguinal hernia he uses hard, twisted silk, prepared by himself. The ligature is passed around the neck of the sac and tied firmly. The sac is then cut across below the ligature, but is not dissected out. The sac is pushed up, and the borders of the ring brought together with the two ends of the ligature-thread upon a Lister's needle. From four to seven other ligatures are applied, and

tied from above downwards. Drainage is unnecessary, if the wound be completely dried up to the moment of closure, and then padded with antiseptic wool. The dressing is not touched for ten days. The patient should maintain recumbency for three weeks or a month.

C. B. Keetley reported fourteen operations by injection, done over eight months previously. Three had derived no benefit from the operation. Most of the patients discarded their trusses several months after the operation. Failures result from not using enough fluid, from not getting it into the canal, and from the fluid escaping from the canal. While the injection is by far the safest and easiest operation for the ordinary surgeon, for certainty of result he thinks it cannot compare with the operations upon the sac, which, however, are safe in the hands of but a few surgeons.

A. Rabagliati attributed his early failures to the fact that the sac was not removed, and in it the fatal peritonitis arose. His method of operating is much like the direct method of the elder Gross.

Walsham preferred Banks' operation, cleaning the sac well up to the peritoneum, and using kangaroo-tail tendon for ligating.

W. Mitchell Banks described his method thus: In inguinal hernia, the sac, after being cleanly dissected out, is opened, and all bowel is replaced, and adherent omentum tied and cut away. The sac is then well pulled down, ligatured as high up in the canal as possible, and removed. Finally, the pillars of the ring are brought together by two or three silver sutures, which are left in position.

In femoral hernia, the cleaning and removing of the sac constitute the whole operation, and no attempt is made to close the femoral aperture.

In ventral and in umbilical hernia, use is frequently made of a whole or a part of the sac as a plug to stop the aperture, which is generally large, and in which it is seldom possible to adopt any means of approximating the edges which seems likely to be permanent. He adheres to this plan on account of its simplicity, and because it should be done many times by the same operator

in order that a fair estimate may be made of its value and its defects. Where this operation has been added to that for the relief of strangulated hernia, he believes the danger of the latter operation is greatly lessened, unless the conditions are such as to preclude the possibility of so extended an operation. He attributes part of his later success to the removal of the sac. He thinks the annoyance attributable to trusses is exaggerated. In children operations are seldom required, a well-fitted truss curing the vast majority. He urges the operation in small femoral hernias with adherent omentum, and in inguinal hernias too large to be supported. If an efficient truss can be worn with comfort, he does not advise an operation. He strongly advises the use of a light support after the operation, as well as the avoidance of straining.

William Macewen's operation differs from the preceding in that the sac is not dissected off or retained in the canal; but is completely returned beyond the limits of the canal, formed into a pad and placed on the abdominal aspect of the circumference of the internal ring. This being done, he brings the walls of the canal together, with a double suture in the conjoined tendon, which is brought into close proximity with that portion of Poupart's ligament on the level with the lowest part of the internal opening, and above by the transversalis and intestinal oblique, at a point corresponding to the highest level of the internal ring, the aim being to carry the conjoint tendon outwards towards the fixed unyielding ligament of Poupart, and to unite with the transversalis and internal oblique muscles. In oblique inguinal hernia the rectus muscle ought never to be included in the suture, as that would tend to defeat the desired object.

He does not believe that metallic sutures should be allowed to remain permanently. On the whole, he prefers catgut which has been so prepared as to last two or three weeks. He also uses drainage-tubes of decalcified chicken-bone.

C. B. Ball gave the results of his experience in the endeavor to cure her-

nias by torsion of the sac. The latter is completely separated from the cord up to the internal ring, and the peritoneum loosened from its attachments for some distance from that opening. The sac being known to be empty, its neck is grasped with broad-catch forceps and twisted. Four or five revolutions are usually sufficient; but the twisting should be continued till it is quite tight. A stout catgut ligature is then applied as high up as possible, and the ends cut short.

Two sutures of silk are now passed through the skin one inch from the wound, the outer pillar, the twisted sac in front of the catgut suture, and, finally, through the inner pillar and skin upon the inside. As these sutures prevent the sac from untwisting, it may be cut off in front of them, and a catgut drain is brought out through a separate opening at the back of the scrotum, and the two sutures closed over lead plates. Dry dressings are employed, and the bandages painted with silicate of potash. The dressings are allowed to remain from ten to fourteen days.

MEDICAL JURISPRUDENCE SOCIETY OF PHILADELPHIA.—The officers elected on the 10th ult., for the ensuing year are: Chas. K. Mills, M.D., President; John H. Clark, Esq., First Vice-President; Henry Leffmann, M.D., Second Vice-President; F. X. Dereum, M.D., Secretary; P. S. Coggins, Esq., Treasurer; G. Milton Bradford, M.D., Recorder.

THE *Annals of Hygiene* is indebted for one of its most entertaining selections to the picturesque fancy of some newspaper reporter. The article is an account from the Press of a man employed in an oil barrel establishment of this city, who has contracted the unusually pernicious habit of drinking crude petroleum. The scientific value of this contribution is somewhat impaired by its utter lack of truth, but as an instance of reportorial romancing, and of the absurd gullibility of the official organ of our State Board of Health, it is not wholly devoid of interest.—*Pittsburgh Med. Review.*

[N.B. Better label your jokes, if you send them to Pittsburgh.]

REVIEWS AND BOOK NOTICES.

SIX HUNDRED MEDICAL DON'TS. By Ferd. C. Valentine, M.D. Publisher, G. W. Dillingham, N. Y. 1888. Pp. 144, 12mo.

This book is the antithesis of the usual text-book, representing in terse form the germs which might be expanded into many a wise and useful homily. We would like to put this book into the hands of every one of our patients. The directions for the prompt treatment of snake-bites and of drowning or otherwise asphyxiated persons are especially commendable.

The directions for managing frost-bites show a lamentable error, which, perhaps, arises from the fact that the author's experience was gathered in Honduras, instead of in Canada. He says: "Don't apply heat to frozen fingers, etc.; rub them with snow or pounded ice." He should have specified wet snow, as rubbing with dry snow can have no other effect than to increase the frozen area.

Here is some bed-rock common sense: "Don't fall in love without previously ascertaining whether the object of your affection has descended from people of perfect moral and physical character."

This is excellent. When the first symptoms are felt, ascertain from the young lady if her grandmothers were all they ought to be; if her father came out of his last wheat deal with a proper amount of other people's funds; take a peep at the lady's teeth, etc., etc. Then, if you survive, and the field is clear, make up your mind and fall gently in love. It's so frequently done in that way.

FUNCTIONAL NERVOUS DISEASES; THEIR CAUSES AND THEIR TREATMENT. By George T. Stevens, M.D., Ph. D. Published by D. Appleton & Co., New York, 1887. 8vo, 217 pages.

This memoir received the highest honor awarded in 1883 from the Royal Academy of Medicine of Belgium.

The proper title of this book should be, "The Influence of Abnormal Conditions of the Visual Apparatus upon Functional Nervous Affections," as this fully describes the scope of the work.

Viewed from this point it is a work of great value, one which will be found useful even to one who is fully indoctrinated with the views of Anstie. Instead of repeating the work of this and other masters in neurology, Dr. Stevens wisely confines his work to the results of his own observations and researches. While the book is thus in no sense a compend, there are few practicing physicians who would not carry away from it a clearer idea than they previously possessed of the importance of, and the exact role played by ocular anomalies in, the causation of headache and the graver neuroses.

The work is illustrated by photogravures, while the text and paper are all that could be desired.

NATURAL LAW IN THE BUSINESS WORLD.

By Henry Wood. Publishers, Lee & Shepard, Boston, 1888. Pp. 222, 12 mo, paper covers. Price, 30 cents.

This is a series of essays upon the relations of labor and capital, wealth and its distribution, and other subjects of vital interest to the whole community. The author writes in a plain and simple style and presents his case in a way which should win the commendation of thinking men. Were we quite sure that those for whose edification such books are intended ever do think, or thinking accurately and seeing the truth are able to place the duties of the citizen above the selfish instincts of the individual, we would believe that such books as these do a world of good. We hope they do.

OPERATIVE SURGERY ON THE CADAVER.

By Jasper Jewett Garmany, A.M., M.D., F.R.C.S. D. Appleton & Co., N. Y. Pp. 150, 8vo.

A guide to the manipulative procedures of the ordinary surgical operations. It is well fitted to be a text-book for classes on operative surgery. Two colored diagrams are given, showing the collateral circulation after ligation of the arteries in the arm, the leg and the abdomen. These are so good that the reader regrets there are not more of them. In fact, the lack of illustrations is the most serious defect in the book. As a manual it is excellent.

ON THE DIAGNOSIS OF DISEASES OF THE BRAIN. By W. R. Gowers, M.D., F.R.S. Second edition, 1888. P. Blakiston, Son & Co., Phila. Pp. 254; price, \$2.00.

This volume contains eighteen lectures delivered at University College Hospital. The text is illustrated with cuts and diagrams. The book is not one to be lightly read or skimmed over. The subject is too intricate, too complex, for any but such readers as are willing to expend time and thought upon it. Such readers will enjoy a subject thoroughly written up with the clearness which comes from an intimate knowledge of the topic discussed.

A DICTIONARY OF TERMS USED IN MEDICINE AND THE COLLATERAL SCIENCES. By the late Richard D. Hoblyn, M.A., Oxon. Eleventh edition. Revised by John A. P. Price, B.A., M.D., Oxon. George Bell & Sons, York St., Covent Garden, London, 1888. Pp. 806.

An excellent book for reference, copious, with good definitions, but few synonyms. It stands midway between the cyclopædic work of Dunglison and the small volumes for students' use.

A HISTORY OF THE MEDICAL CLASS OF '77 (U. P.) By J. M. Anders.

We are sorry we were not a member of '77, and cannot have Dr. Anders draw our pen-picture as charmingly as he does his comrades.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

EDITORS OF MEDICAL TIMES:—In your issue for Dec. 1, "G. B. S.," of Weston, W. Va., relates a case and asks for your opinion in regard to diagnosis and treatment.

In addition to the line of treatment, mentioned by one of the editors, I

should like to suggest the use of galvanism—employing a current which will produce, in the patient, a pleasant sensation of warmth. The *positive* electrode being placed at the top of the spine, the *negative* at the seat of pain. The sances should be of short duration, lasting not longer than five minutes, if occurring every day, or ten minutes every other day.

MARY WILLITS, M.D.

1527 Green Street, Phila.

ABOUT THE SIZE OF A —

Editors MEDICAL TIMES:

WILL you allow me, as an English physician who reads and values American medical periodical literature, to make a protest against the way in which we, on both sides of the herring-pond, give loose statements as to the size of pathological objects. Such time-honored comparisons as a "foetal head" (I thought they varied a great deal) or "a millet seed" (I never saw a millet seed, but believe it to be about as big as a miliary tubercle), we cannot hope to get rid of before the millennium. But when it is a mere matter of length or breadth, could we not state the fact in inches, or millimeters? I am moved to write to you by having been just now brought up by the statement that something or other was "about the size of a dollar." I was interested in this case up to that point, but I got lost then; the only dollar I ever saw was a tiny gold coin, "about the size of a three-penny bit;" I beg pardon, about fifteen millimeters in diameter. From the context I think that the article mentioned must have been bigger than that, but I am not sure and the statement bewilders me and destroys my interest in the case. Another time I came across the statement that a tumor was "about the size of a doughnut." Now as to a doughnut my mind is blank; is it a nut that grows on a tree—a cocoanut, or a walnut, or a hazelnut? or is it the other half—"dough" suggests it is a kind of cake—a "bath bun," or a "tea cake," or perchance a cake "about the size of a piece of chalk?" as the witness said in the famous trial.

It is bad enough, Sirs. to have to learn two or three languages in order to keep

ahead of the progress of medical science. Why should we, who speak the same language, throw these entirely unnecessary obstacles in each other's way? I hope you will lend your powerful influence to induce our American cousins to give their measurements in terms of some scale which can be mutually understood.

A PUZZLED ENGLISHMAN.

London, December 28, 1887.

P.S.—Since writing the above a lady has told me that a "doughnut" is a kind of bun about the size of an orange, brown outside, jam inside, very good to eat, and "they cost three-halfpence." Upon this I wish to ask: (1) Tangerine or Seville orange? (2) Is she right? (3) Granting 1 and 2, is this a satisfactory way of arriving at a pathological fact?

PHYSICIANS SHOULD NEITHER BE PHARMACISTS NOR PHAR- MACISTS PHYSICIANS.

MESSRS. EDITORS:

Dr. C. L. Mitchell in an article to the *MEDICAL TIMES* of recent issue, in discussing the question, "Should Physician be Pharmacist," takes the affirmative position; and, in referring to many existing facts bearing upon the mutual relation of the professions, advises the physician to boldly enter the domain of pharmacy, by legitimate procedure, of course, and take his chance on the result. Your present correspondent would take a different view, and affirm his conviction that as the dismemberment of pharmacy from physic took place as long ago in the world's history as the eleventh century, and by the fifteenth era became a confirmed and distinct separation, it would be a long stride backward to now attempt to ally medicine to the practice of an art like pharmacy, which, as the dissemination of knowledge and the advancement of science have demonstrated, involves wholly separate offices and functions.

Passing without comment over the grievances, real or fancied, which the malcontents of each profession affect to feel at the so-called usurpation of rights and privileges, we do not believe that crimination and recrimination, jealousy and mistrust, suspicion and retaliation, will ever bring about harmonious rela-

tions, equalize things or inure to the material benefit of either, but just the reverse, as these are the feelings which engender antagonism. But that, so far as is possible, aggressive innovation should be discountenanced and discontinued through the influence of good counsel and the recognized representatives of both bodies.

Positive evils and unjust practices should be made subjects of earnest conference and, being approached with reasonable, and conciliatory desires, adjustment would be entirely feasible. To state the truth plainly, the troubles which vex and which rise from conflicting interests have their whole and sole origin in over-crowded ranks and the attendant struggle for success. Neither medicine, nor pharmacy are, as a rule, longer remunerative, even in the popular centres. Failure from this cause does not as yet appear to lessen the tenacity to keep to a chosen pursuit, and our educational institutions offer no proper bar to oppose the ingress and annual avalanche of new recruits. It is vain to cry Full! Full! and the question or solution *must* finally resolve itself in a "survival of the fittest." We have to deal with pressing necessities and actual need and, until we may reach that Utopian era when morals may be successfully appealed to to sustain reason, we need hardly expect change or relief from existing circumstances. The pharmacist in the assistant capacity is the most meagerly paid of public servants and we have reason to believe that a large proportion of young practitioners of medicine barely make a livelihood! The failure, then, or want of opportunity, lies not at the door of either profession, medicine or pharmacy, but where other causes operate, such as have briefly been referred to above. No man, matured in years and experience, and of reasonable success or eminence in either profession was ever known to advance a proposition that medicine should deliberately invade pharmacy, or that pharmacy should innovate upon medicine with a view to protecting and sustaining the necessary requirements of either! On the other hand, every busy and earnest practitioner and every properly occupied pharmacist realize that in their

respective departments, time and life are both of too brief duration to do more, or essay more, than an intelligent exercise of the duties which pertain to each pursuit.

Let the aggressive practitioner and the retaliatory pharmacist each pause and it may be found that both have been drifting into false and untenable positions in seeking for causes of failure and disappointment. Let each faithfully and conscientiously pursue his separate path of pursuit with mutual respect, and with due regard for the accorded rights of each; and in time warring and clashing of interests may cease and this too without sacrifice of professional prestige or loss of personal respect.

Very respectfully yours,

WILLIAM B. THOMPSON.

December 9th, 1887.

ANTIPYRINE IN SCIATICA.

Editors MEDICAL TIMES:

I have never been more thoroughly convinced of the curative power of a drug than I am of the power of antipyrine in controlling the "algias." I have used it for a time and almost invariably with the most gratifying results. The last case treated by me was such a forceful demonstration of its good effects that I will, in few words, relate it: I was called a week since to see a lady fifty-seven years of age, who was suffering the most excruciating pain I have ever witnessed in sciatica. I prescribed fifteen grains of antipyrine, which was repeated in two hours. In a short time the pain was entirely gone, and the patient slept twenty-four hours with but few brief interruptions. She has had no symptoms of sciatica since the antipyrine was taken. I am convinced that there is nothing that will go ahead of antipyrine as an anti-neuralgic remedy. It is claimed that antifebrine has a similar effect. My experience does not warrant the assertion. The cyanosis produced by antifebrine will prove a barrier to its usefulness. I believe the price of antipyrine is unnecessarily high, and hope the manufacturers will reduce it.

C. M. POOLE.

Salisbury, N. C.

MISCELLANY.

THE EPISCOPAL HOSPITAL. The thirty-sixth annual meeting of the contributors to the Hospital of the Protestant Episcopal Church in Philadelphia was held Jan. 3. Mr. Alexander Brown presided and Rev. John A. Childs, D. D., acted as Secretary.

The annual report of the Board of Managers called attention to the many improvements made during the year and the increase in the work of the hospital, which was greater last year than during any preceding year in the history of the institution. Notwithstanding the economy practiced, it stated that the expenditures exceeded the contributions by \$10,200, which was partly defrayed from the ordinary legacies received during the year, amounting to \$3450, leaving a deficit of \$6750, which has been drawn from the permanent fund.

The daily average number of free patients has been 165, and of paying patients 5. During the year two gifts of \$5000 each for the endowment fund of free beds were received from Mrs. Rebecca Gibson and Mrs. Caroline Taitt.

The report dwells upon the loss by death of three of its most earnest and devoted friends, which the hospital has sustained during the year—Bishop Stevens, who had been President of the institution since 1865; Rev. Richard Newton, D. D., late Rector of the Church of the Covenant, and Mr. Charles Spencer. They were all members of the Board and a fourth vacancy in the board was caused by the resignation of Rev. C. George Currie, D. D., prior to his leaving the country. In place of these the Board elected Rev. Joseph D. Newlin, D. D., Rev. William N. McVickar, D. D., Rev. J. Blake Falkner, D. D., and Mr. Charles D. Clark.

Mr. W. W. Frazier, the Treasurer, reported that the receipts for the year amounted to \$97,368.80, of which \$13,018.10 were contributions from churches and \$5356.25 from individuals and firms.

The Superintendent reported that 150 patients were in the hospital at the date of the last report. During the year

1809 patients were admitted, making a total of 1968 patients who were treated at the institution last year. Of this number 1793 were discharged, 1242 cured, 340 improved and 95 unimproved, and 159 died, 29 being deaths from railroad and machine shop accidents, which resulted fatally within 24 hours after admission, leaving 175 patients under treatment. Of these 103 are surgical cases and 72 medical; 107 are men, 41 women and 27 children.

The dispensary patients during 1887 numbered 20,031, of which 11,677 were surgical, 6,762 medical and 1,592 eye and ear cases. They were furnished with 59,329 prescriptions gratuitously, at a cost to the Hospital of \$2,728.25.

The reports were received and ordered to be published, and the following members of the Board, whose terms had expired, were re-elected: Rev. B. Watson, D. D.; Rev. Thomas F. Davies, D. D.; Messrs. B. G. Godfrey, John C. Brown, Charles C. Harrison, Oliver Landreth, and Israel W. Morris.—*Ledger*.

TRUSEVICH finds that headaches depending on a vaso-constrictor neurosis are immediately curable by nitroglycerine.—*The Lancet*.

OFFICIAL LIST

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM DECEMBER 18, 1887, TO DECEMBER 31, 1887.

COLONEL J. H. BAXTER, CHIEF MEDICAL PURVEYOR.—Ordered to inspect the Medical Purveying Depot at St. Louis, Mo. S. O. 296, A. G. O., December 23, 1887.

CAPT. VICTOR BIART, ASSISTANT-SURGEON.—Relieved from further duty in Dept. Dakota. S. O. 293, A. G. O., December 17, 1887.

FIRST LIEUTENANT WM. B. BANISTER, ASSISTANT-SURGEON.—Ordered to proceed to Fort Lowell, Ariz., and report to commanding officer for duty; upon the arrival of P. J. A. Cleary, at Fort Wingate, N. M. S. O. 135, Dept. Ariz., December 20, 1887.

FIRST LIEUTENANT EUGENE S. SWIFT, ASSISTANT SURGEON.—Ordered for duty at Fort Spokam, Wash. Ter. S. O. 293, A. G. O., December 17, 1887.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 1, 1888, TO JANUARY 14, 1888.

MAJOR P. J. A. CLEARY, SURGEON.—Granted leave of absence for one month. S. O. 138, Dept. Ariz., December 25, 1887.

CAPT. LOUIS S. TESSON, ASSISTANT-SURGEON.—Relieved from duty at headquarters Div. of

the Missouri, and as Examiner of Recruits at Chicago, Ill., and ordered for duty as Post Surgeon at Watervliet Arsenal, N. Y., retiring Capt. Henry G. Burton, Assistant-Surgeon. S. O. 5, A. G. O., January 7, 1888.

CAPT. RICHARDS BARNETT, ASSISTANT-SURGEON.—Ordered from further duty in Div. of the Atlantic, to duty at Fort Riley, Kan.; to take effect at the expiration of his present sick leave. S. O. 5, A. G. O., January, 7, 1888.

CAPT. R. G. EBERT, ASSISTANT-SURGEON.—Ordered from Fort Custer, Mont., to Fort Pembina, D. T. S. O. 301, A. G. O., December 30, 1887.

CAPT. A. H. APPEL, ASSISTANT-SURGEON.—Granted leave of absence for twenty days. S. O. 1, Dept. Missouri, January 3, 1888.

FIRST LIEUTENANT C. B. EWING, ASSISTANT-SURGEON.—Granted one month's leave. S. O. 137, Dept. Missouri, December 27, 1887.

FIRST LIEUTENANT WM. B. BANISTER, ASSISTANT-SURGEON.—Ordered from Fort Lowell, Ariz., to Fort Wingate, N. M. S. O. 3, A. G. O., January 5, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 14, 1888.

GEORGE PURVIANCE, SURGEON.—To proceed to Detroit, Mich., as inspector of unserviceable property, January 11, 1888.

H. W. AUSTIN, SURGEON.—When relieved to proceed to Chicago, Ill., and assume charge of the Service, January 12, 1888.

J. M. GASSAWAY, SURGEON.—Leave of absence extended fifteen days, January 10, 1888.

C. B. GOLDSBOROUGH, SURGEON.—When relieved to proceed to New Orleans, La., and assume charge of the Service, January 12, 1888.

FAIRFAX IRWIN, SURGEON.—To proceed to Boston, Mass., and assume charge of the Service, January 12, 1888.

H. R. CARTER, PASSED ASSISTANT-SURGEON.—When relieved to proceed to Ship Island Quarantine, Miss., and assume temporary charge of the Service, January 12, 1888.

P. M. CARRINGTON, ASSISTANT-SURGEON.—Granted leave of absence for thirty days, January 10, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 21, 1888.

C. B. GOLDSBOROUGH, SURGEON.—To proceed with insane seaman from Chicago to Government Hospital for the Insane, January 16, 1888.

F. C. HEATH, ASSISTANT-SURGEON.—To proceed to Buffalo, N. Y., for temporary duty, January 21, 1888.

OMITTED FROM PREVIOUS LISTS:

G. W. STONER, SURGEON.—To proceed to Wilmington, N. C., Georgetown and Charleston, S. C., Savannah and Brunswick, Ga., Fernandina, Jacksonville, and Pensacola, Fla., as Inspector, December 30, 1887.

PHILADELPHIA MEDICAL TIMES.

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No. 527. FEBRUARY 15, 1888. VOL. XVIII

CLINICAL LECTURE.

ON A CASE OF PROGRESSIVE
MUSCULAR ATROPHY OF SO-
CALLED MYOPATHIC FORM.

BY FRANK WOODBURY, M.D.,
Professor of Materia Medica, Therapeutics and
Clinical Medicine in the Medico-Chirurgical
College of Philadelphia, etc.

[Reported by Mr. B. H. Diehl, medical student,
Senior Class.]

GENTLEMEN:—The patient just entering the amphitheatre presents a clinical problem which is chiefly of diagnostic interest. He has now been under treatment in this hospital for at least five months; and, although he is sometimes better and sometimes worse, he cannot make up his mind that he is any better, taking one day with another, than he was on the day of admission. Therapeutically, very little can be said; the prognosis, I need hardly add, is unfavorable as regards his disease, but his life may be prolonged to his full expectation, using the term in the sense with which those interested in life insurance are familiar.

“Thomas G., 38 years of age, white, not married; salesman in a stove ware-house; occupation neither laborious nor involving exposure to the weather. Mother died with apoplexy; she was

nervous and often neuralgic; father living; one brother died with phthisis from exposure during the war. Personally, has generally had good health with very little sickness before present illness. Has a venereal history: gonorrhœa five or six times, with gonorrhœal rheumatism once; syphilitic infection five years ago. Was under treatment for syphilis for a year; has never been well since. About four years ago the general loss of strength was very marked, and was accompanied by emaciation and enlargement of the knees and elbow joints, which became tender and painful. He progressively lost flesh, the muscular atrophy being more marked in the legs and arms. This proceeded until he was unable to attend to his duties and he has not worked at anything for over two years. During all this time his appetite remained unimpaired and he still eats and sleeps well. He has had no trouble in evacuating bowels or bladder. Special senses well preserved, intelligence good, no cerebral symptoms. His gait is deliberate, somewhat mechanical, but there is no dragging of either foot; he can walk without a cane. With eyes closed he totters, and cannot preserve his balance. He cannot accurately approximate the tips of his fingers without looking at them; he has great diffi-

Gully in combing his hair, in using his knife and fork at the table and cannot button his clothing.

"The muscular atrophy is very noticeable in the limbs, his arms being little more than skin and bone, the wasting of the surrounding structures making the knees and elbows prominent. The muscular elements respond to Faradism, but require stronger currents to produce muscular contraction than they would in health. Strong currents are painful. With the *æsthesiometer* the area of tactile appreciation is increased in the soles of both feet; *anæsthesia* is not present. Hearing is good. Ophthalmoscopic examination shows normal eye-ground; his pupils are regular and respond to the light; he is presbyopic and requires the aid of lenses for reading. He has no eruption on his body and no glandular enlargement. He has marked tenderness of the spine in the lower dorsal region. Although of average stature, his bodily weight is less than ninety pounds."

To this history, carefully prepared by Mr. Diehl, I will add that his heart and lungs appear to be normal and that repeated examinations of his urine have failed to show traces of albumen or sugar.

Now, there is no question with regard to the reality of the illness of this patient. His sickness is not feigned; he is no malingerer. In fact, the morbid process is so patent that we might pronounce the case off-hand, one of progressive muscular atrophy, and dismiss it from further consideration. Some of you, however, might be sufficiently inquisitive to wish to know why this profound change in nutrition has taken place. What is the pathology of the case? Is it a disease of the muscles or of the central nervous system? Or, again, is it an instance of simple emaciation due to defective assimilation? In short, a case of starvation? Or, finally, may it, indeed, be due to a morbid process different from any of these?

Let us see if recent contributions to the pathology of the nervous system will shed any light upon the diagnosis in this case. In the first place we can exclude inanition or starvation, not so

much by considering the amount of food which he eats and the apparently normal process of digestion, but, principally, from an examination of the blood. He is neither *spanæmic* nor *leucoeythæmic*; his lips and ears are of good color; his radial pulse is well filled at each ventricular systole. Nor is he *phthisical*; he has no cough; his throat and lungs are free from tubercular invasion.

Is it a case of disease of the central or cerebro-spinal nervous system? It is certainly not cerebral; the normal condition of the eyes, the entire absence of headache, convulsions, vertigo, vomiting, all show that the gross lesion is not in the brain. If spinal, with what form of disease will these morbid signs best correspond? All acute spinal affections are excluded by the clinical history. What spinal diseases of slow progress could present these symptoms? A member of the class suggests "*posterior spinal sclerosis*," while another amends with the substitution of "*anterior*" for posterior. These are appropriate suggestions and deserve discussion. If by the latter is meant disease limited to the anterior cornua of the cord, what is known as spinal paralysis of adults, which has muscular atrophy as a marked feature of the disease, we observe that some essential features are absent in the case before us. It is not a case of spinal paralysis with atrophy, because there is no real paralysis here; only a paresis or weakness, which can be fully accounted for by the diminution of muscular elements and corresponding loss of power. Moreover, the electrical reaction is well-preserved, which is not the case in atrophy accompanying spinal paralysis. If antero-lateral or amyotrophic sclerosis of Charcot be meant, then it must be admitted that the condition of the muscle would give some warrant to this view; but the entire absence of the element of spasm, so characteristic of this disease, would require us to exclude it from consideration. Posterior sclerosis; or locomotor ataxia, is likewise excluded by the absence of neuralgic pains, and of actual loss of power, with preservation of sensation (he says the ground feels firm and solid under his feet). Moreover, the patellar tendon

reflex is well-preserved, considering the diminution in size of the muscles. You know that in most cases the knee-jerk is lost early in the disease, although I do not consider this a pathognomonic symptom. I can recall cases in which it was not only present but exaggerated, where other unmistakable symptoms of locomotor ataxia were evident. A more important feature of this disease is the Argyll-Robertson pupil, or the sluggish response to light. In some cases, an immobile, pin-point pupil is present, which might lead you to unjustly suspect the patient of being under the influence of opium or morphine. Optic neuritis, strabismus, ptosis, or other ocular symptoms, and neuralgic pains in the eyes, are common in posterior sclerosis. We find none of these here. The fact that he is unable to maintain his balance with his eyes closed may be due to muscular weakness; and the same explanation may serve for the manual clumsiness. They do not necessarily imply a defect in power of co-ordination. There is also an entire absence of cutaneous eruptions (urticaria, herpes, etc.), which have been noticed by Charcot and others. There are no evidences of disturbed nutrition, other than those demonstrated in the muscles, unless, indeed, it may be said to exist in the osseous system, since the arm bones appear unusually small for a man of his stature.

While it is true that muscular atrophy is not common with ataxias, yet in a case of long standing it may be very marked, as in a case reported some years ago by Hammond. But in the absence of psychic or digestive disorders (gastric crises), of the girdle pain, of functional disturbance of bladder and rectum, I think that we may exclude progressive locomotor ataxia from further consideration. All local diseases of the cord—inflammatory or non-inflammatory, softening or sclerosis—can be safely omitted from discussion, on account of the preservation of control over the bladder and rectum, the general and almost symmetrical distribution of the morbid process, not to speak of other points of diagnosis, which will readily occur to you.

The last statement is perhaps too sweeping in excluding all affections of

the cord, if we adopt the view of Hammond of the pathology of progressive muscular atrophy. He teaches that this disease is essentially a lesion of certain trophic nerve-cells in the anterior cornua of the gray matter of the spinal cord. It is not quite clear to me how it could possibly be the case, assuming that trophic and motor ganglion cells lie side by side in the anterior root-zone, that an inflammatory or morbid degenerative process of such gravity as to produce the changes characteristic of this disease, could attack the trophic elements without involving the ganglion cells as well, thus giving rise to motor paralysis; in fact, a poliomyelitis.

I must remind you that of late years cases presenting many of the features of spinal sclerosis have been found to be due, in reality, to peripheral neuritis. Thus, Dejerine reported, about five years ago, to the French Academy, a series of cases in which the symptoms of tabes existed during life, but after death no special lesion of the cord was found, the morbid phenomena being the result of degenerative changes in the nerves. Messrs. Rummo and Fournier, more recently, have therefore extended the definition so that now locomotor ataxia is regarded as an affection of the spinal cord, of the brain and of the peripheral nerves; often anomalous cases occur in which only one group of symptoms is present and the ataxia of movement may be absent for many months. Fournier says that the pre-ataxic period may be prolonged even to thirty years.

Muscular atrophy frequently follows a neuritis. While in some cases neuritis is pre-eminently an acute affection, its course being brief and its symptoms frank; in others it is so slow as to warrant the idea that it is of the nature of a degeneration rather than an inflammation; in either case, sclerotic changes may follow, and disturbances of growth, of sensation and motion be manifested.

Two features in this case would point to this being a nervous affection: 1st. Nervous disease in his family. 2d. Syphilis, which he acquired five years ago; a sufficient time to permit the development of syphilitic nerve disorders. Although he denies exposure to cold or wet, yet he informs us that he has led

a loose life, and such cases are always liable to be exposed. He might fall asleep sitting upon a cold step, or lying upon the grass in the park, and afterwards forget it. If it be really a case of neuritis—to which view the tenderness and soreness instead of actual pain, the numbness and formication of the feet, and the presence of fibrillary tremors in the muscles would lend some sanction—then the loss of muscular power should have preceded the atrophy. The fact that the contractility of the muscle upon electrical stimulation is preserved, is in favor of this case being due to a peripheral lesion rather than to a spinal one.

Muscle atrophy is a comparatively common affection. In addition to the forms which have been mentioned, there yet remains a group in which the muscular affection is primary. I do not now refer to local atrophies due to isolated lesions or to over-use of certain muscles. Within a few years the investigations of neuro-pathologists have greatly simplified this subject. What has been called "the Muscular Disease" includes pseudo-muscular hypertrophy, the juvenile atrophy of Erb, the infantile progressive form of Duchenne, and other types. These are very apt to occur in families; the disease often begins in early life, but may attack at any age; the muscles are affected according to their anatomical relations rather than in accordance with physiological functions or nerve distribution. Fibrillary tremors are usually absent; the electrical reactions are changed only in the latest stages.

Owing to the very defective early history of this patient in our possession, we are deprived of data which would permit us to arrive at a more positive conclusion. He informs us that he did not observe wasting in single muscles or in anatomical groups of muscles, as in the muscles around the ball of the thumb, which is so common in the early stages of progressive atrophy. We may take this statement for what it is worth, remembering the duration of the disease and the fact that he may not be a very close observer. If required to decide between the spinal form of muscle atrophy and the muscular disease, I would,

from this examination, pronounce it the latter. If further asked whether the disease be one strictly limited to the muscle, or involving the end organs, possibly the nerve trunks, of peripheral nerves, I again incline to the latter. Bearing in mind the prolonged course of the disease, I would not be surprised even to find that the trophic centres in the cord were affected by degenerative processes. What the phenomena were at the onset are not known to us with sufficient accuracy to make a positive diagnosis of the primary lesion. If it be truly a case of general peripheral neuritis, it would have a sufficient exciting cause in the syphilitic history, since this is probably the most frequent source of these cases; the changes in the nerve trunks consisting of infiltration, inflammation, increase of connective and final destruction of the axis-cylinder of the various fibrillæ, followed by contraction into a sort of a fibrous cord—sclerosis of the nerve-trunk, in effect.

As regards therapeutics, I warned you that I could say nothing very encouraging. For months he has been upon regulation anti-syphilitic treatment with very little if any benefit. If nerve-elements have been actually destroyed, it is not to be expected that the mere arrest of the process would restore the parts to a normal condition. We can only hope that the patient may get no worse, and tell him to make up his mind to enjoy such a degree of health as he can obtain, and be satisfied. We will give him good food; he shall have a cold douche to his spine every forenoon, followed by general massage and Faradism (mild currents) to the affected muscles. He shall take cod-liver oil as a special nutrient to the nervous system, and the pill of phosphide of zinc (gr. $\frac{1}{10}$), and nux vomica (gr. $\frac{1}{4}$), three times a day.

He states that he has never been well since he had a year's treatment for syphilis. What that treatment was, we can pretty accurately guess; what influence the persistent administration of mercury (not always in small doses) may have had upon the spinal cord and peripheral nerves in a person with neuropathic antecedents, we cannot say. We only note that at present we can

find no evidence that would warrant a diagnosis of mercurial poisoning in this case, and therefore set it down as one of atrophic myopathy in which the nerve-elements probably participate, if, indeed, the morbid process did not arise in them.

[*Note one month later.* The emaciation is extreme and steadily progressing; he can walk only with the aid of crutches. The recent appearance of joint-swellings on the index finger and thumb of each hand, without evidence of inflammation, would confirm the view above expressed that the disease is not purely myopathic.—F. W.]

ORIGINAL COMMUNICATIONS.

PUERPERAL SAPRÆMIA.

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(Continued from page 265.)

Case II.—Mary C., colored, aged 17, primipara, was confined Jan. 22, 1886. The duration of the first stage of labor was fourteen hours; the second, one hour and fifteen minutes; the third, twenty minutes. On the evening of the second day the lochial discharge was fetid; the uterus relaxed; no pain over the abdomen; the milk not flowing. The temperature was 102° , the pulse 116.

Third day, at 9 A.M., temperature 102.5° , pulse 112. The uterus was washed out. Ergot was given. At 4 P.M., the temperature was 99° , the pulse 68.

Fourth day, 9 A.M., temperature 98.5° , pulse 84. At 7 P.M., the temperature was 101.5° , the pulse 104. The ergot was continued. The highest temperature after this was 100.5° . No antipyrine was given. The patient was out of bed the sixteenth day.

Case III.—Lizzie F., colored, aged 17, primipara, was confined January 30, 1886. The duration of the first stage of labor was forty-eight hours; the second stage, two hours; and the third stage, twenty-five minutes.

The first, second and third days after labor, the pulse and temperature were only slightly above normal.

The fourth day, at 7 P.M., the temperature was 103° , the pulse 116 and very weak. The lochial discharge was decomposing. The uterus was relaxed. No pain could be elicited by pressure over any portion of the abdomen. The milk was almost suppressed. Fluid extract of ergot was given. A two per cent. carbolic acid solution was used as a vaginal injection.

Fifth day, at 9 A.M., the temperature was 99° , pulse 96. At 7 P.M., the temperature was 103° , pulse 112.

The seventh day, at 9 A.M., the temperature was 102.5 , the pulse was 108. At 7 P.M., the temperature was 104° , pulse 132. After this the highest temperature was 101° .

The patient was discharged February 24.

Case IV.—Mary C., aged 30, white, primipara, was confined February 18, 1886. Before confinement she had had little appetite, and with difficulty retained food on her stomach. Nearly everything not accompanied by subnitrate of bismuth was vomited. She became extremely anæmic and her legs were very œdematous. There was no albumen in the urine, and no valvular trouble. The pulse was weak and rapid, the temperature was normal.

On the evening of the second day after confinement the pulse was 140, the temperature 101.5° .

On the third day at 9 A.M., the pulse was 128, the temperature 104° . The uterus was relaxed. There was no pain over the abdomen. Ergot, antipyrine and vaginal injections were ordered.

The fourth day at 9 A.M., the temperature 100.5° , pulse 128. Antipyrine continued. Extract of ergot was substituted for the fluid extract. At 7 P.M., temperature was 101.5° , pulse 108.

The fifth day at 9 A.M., the temperature 101.5° , the pulse 124. The patient refused to swallow the pills of ext. ergot. The uterus relaxed, the temperature rose to 105° , and antipyrine in the ordinary doses failed to reduce it. Twenty minims of the fluid extract were then administered hypodermically every three hours. At 7 P.M., the temperature was 102.5° , the pulse 124. The hypodermic injections were kept up regularly during the sixth and

seventh days. The eighth day the intervals were lengthened to four hours. The ninth day the temperature was 99° , and pulse 104. The ergot was suspended. The uterus did not have a tendency to become unduly relaxed.

Case V.—Betty W., aged 22, white, primipara, was confined February 27, 1886. The duration of the first stage of labor was ten hours; second, two hours; of the third, twenty minutes.

The fourth day the temperature was 101° , the pulse 88.

The fifth day at 9 A.M., the temperature was 103.5° , the pulse 108. No pain could be elicited by pressure over the abdomen. The uterus was large and flabby. Antipyrine, ergot and vaginal injections were used. There was much difficulty in keeping the uterus contracted. It would relax, and in an almost incredibly short time the temperature would run up to 105° . But in each instance as soon as the uterus was under the influence of the ergot, the antipyrine readily reduced the temperature. The evening temperature (the seventh day) was 101.5° ; the eighth, 101° ; the ninth, 99° . From the tenth to the sixteenth days inclusive, the temperature ranged from 98.5° to 103.5° ; the pulse ranged from 72 to 112.

The morning of the seventeenth day the temperature was 98.5° , the pulse 56, and did not again rise.

Case VI.—Laura W., aged 18, colored, primipara, was confined October 8, 1887. The pains from the first were not powerful. The os dilated slowly. After the patient had been in labor about twenty-four hours the membranes ruptured, the os at the time being dilated to about the size of a silver dollar. The os then slowly but fully dilated, but the head did not advance. Prof. Opie applied forceps at the superior strait and delivered a child weighing nine pounds. Not being able to express the placenta, I hooked my finger into it and withdrew it. The uterus then failing to contract, I at once introduced my right hand into the uterus, at the same time kneading the fundus externally with my left hand. There was still no contraction. Keeping my hand and arm in position to act as a plug until some hot water and a syringe

could be brought to the bed, I then injected the hot water into the uterine cavity, causing complete cessation of the hemorrhage.

The patient was very much exhausted and weak, but otherwise there were no unfavorable symptoms until the evening of the third day, when the temperature was 102° , pulse 120, respiration 36. A vaginal injection brought away several clots.

The fourth day the temperature rose to 104° , the pulse 142, the respiration 34. The uterus was soft and extended nearly to the umbilicus. There was no pain. The milk was suppressed. The lochial discharge was very offensive. Ergot was given. An intra-uterine injection brought away a large quantity of dark colored and horribly offensive blood clots. Two hours later the temperature was down $\frac{7}{10}$ of a degree. The fifth day ergot, antipyrine and vaginal injections were used.

The sixth day she was given another intra-uterine injection. The matter washed out was much less offensive than that of two days before.

The vaginal injections were continued. The antipyrine was substituted by antifebrine.

Her convalescence was interrupted by an attack of ague, but it promptly yielded to a few large doses of quinine, and she has made a good recovery.

Causes.—The parturient canal is aseptic. To have a process of putrefaction set up there must be introduced from the outside, by some means or other, some of the organisms that are essential to the process. These organisms, as has been shown by Tyndall, are present in all ordinary atmospheric air. These organisms, acting upon albuminoid matter, produce, as has been shown by Brieger, a series of compounds which are called by the general name ptomaines. A number of these compounds have been shown to possess marked toxic properties; and at least one, mydaline, produces marked elevation of temperature. Ptomaines are readily absorbed by mucous membranes and abraded surfaces.

From these known facts in regard to the products of putrefaction, and from the known fact that there is a process

of putrefaction going on, it is assumed that the rise of temperature and pulse, and the great depression, are due to the absorption of the products of this decomposition.

Predisposing to these processes, but not essential to them, is the retention of placenta, membranes or blood clots.

Symptoms.—In all the cases here reported the symptoms came on after the second day and before the end of the fifth.

In all, the uterus was large and flabby; there was a decomposing discharge; there was entire absence of pain over the abdominal and pelvic organs; there was an increased pulse, ranging from 110 to 140; there was a rise of temperature above the normal of from four to six and a half degrees. In all cases the increased temperature either fell of itself when the uterine cavity was cleaned out, or could be easily reduced by antipyrine. In the cases which began before the milk-flow commenced, it was never established. In the cases which began *after* the milk-flow was established, it was suppressed. In case I, the milk was suppressed a second time.

The variations of pulse, temperature and common sensation, were just the same as are found under any conditions where there is an undrained cavity containing decomposing matter; and, like sapræmia under other conditions, responded promptly to drainage.

Contagiousness.—There seems to be quite a general agreement as to the contagiousness of this disease Dr. Barnes says: "The autogenetic forms proper did not appear to possess the active powers of propagation. For example, a common form, that which rose from a decomposition of the placenta setting up a septicæmic fever, generally began and ended in the patient attacked." Fordyce Barker quotes the above, and adds: "On this point my own experience and observations are in entire accord with Dr. Barnes." Galabin says: "Where there is septic intoxication or sapræmia only, without infection, there can be no contagion."

While we have good reasons for believing that sapræmia is not contagious to the degree that septicæmia is, still we should remember that we have a

process of putrefaction going on, and if the ferment present be introduced into a suitable nidus, we would expect a similar process to be lighted up.

Pathological Anatomy.—The lesions found post-mortem are not distinctive. Rigor mortis is usually feebly marked. The blood is imperfectly coagulated. The heart is flabby, and marked with petechiæ beneath the pericardium. The liver and kidneys are congested and softened. There is always hypostatic congestion of the lungs. The spleen is large, soft, and at times almost diffuent. The mucous membrane of the alimentary canal is softened and swollen.

Duration.—The duration, depending as it does upon the peculiar anatomical relations of the pelvic organs in the individual, and upon the treatment, is very variable. In case I, where the uterus would not drain itself into the vagina, fifty-one intra-uterine injections were used, and the temperature remained above normal till the forty-first day. In other cases where the relations of the uterus to the vagina were such that the uterus continually emptied itself, no intra-uterine injections were considered necessary, and the course of the disease was much shorter.

Diagnosis.—Septicæmia is the disease most frequently confounded with sapræmia. While there may be in some cases difficulty at first in saying positively which disease is present, the differentiation is usually quite easy to make. Sapræmia comes on usually from the third to the fifth day after labor; septicæmia appears the first or second day of the puerperal period. In sapræmia the uterus is always relaxed; in septicæmia it may be larger, but is firm. In sapræmia there is no tenderness of the pelvic or abdominal organs; in septicæmia, if the patient live twenty-four hours, there is always tenderness of either the abdominal or pelvic organs, or of both. In sapræmia the temperature ranges very high, 104° – 5° – 6° are common; in septicæmia, except just before death, or after the formation of abscesses producing a secondary sapræmia, it is rare for the temperature to rise above 102.5° , or at most 103° . In sapræmia the pulse is rapid and weak, ranging from 100 to 140° , but there is

marked decrease with a fall of temperature; in septicæmia the pulse is small and ranges from 120 to 160°, and with a reduction of temperature there is not a corresponding decrease in the pulse. In sapræmia the temperature can easily be controlled if the cavity of the uterus is sufficiently cleansed; in septicæmia intra-uterine injections are absolutely useless.

Prognosis.—The prognosis in uncomplicated sapræmia is always good. Drainage and antipyretics form as absolute a specific as is quinine in purely malarial fever.

Prophylaxis.—The prophylactic measures here recommended are such as are carried out at the present time at the Maryland Lying-in Asylum. The confinement-room should be well heated and should have an abundance of fresh air and light. The linen of the patient and of the bed should be fresh from the iron. Sheets and night-gowns, though they have been used but a single night, must be exchanged for fresh ones. The nurse should wear a dress made of some light-colored material that will wash. Where it is not feasible to give the patient a full bath, at least a hip-bath with plenty of soap should be used, and followed by a rinse of a solution of corrosive sublimate. Especially where the first stage is prolonged, and a number of vaginal examinations have been made, an antiseptic vaginal injection should be given. After the obstetrician has thoroughly washed his hands, giving special attention to the nails, he should again wash them in a solution of corrosive sublimate, 1–2000. Carbolyzed olive oil or carbolyzed vaseline should be used as lubricants. Since the white shirt-sleeve of the obstetrician is much less apt to be a carrier of contagion than his coat-sleeve, before making a vaginal examination he had better remove his coat. After the child is born the blood-clots and placenta should be at once removed from the room, the woman made comfortable, and everything about her kept clean.

Immediately after labor, iodoform should be freely dusted into the vulva. During the puerperal period, where there is no process of decomposition going on, I do not consider either

vaginal or intra-uterine injections advisable.

Treatment.—In the treatment of the cases related the objects sought were:

1st. To secure tonic contraction of the uterus.

2d. To keep the cavity of the uterus clean.

3d. To control the temperature.

4th. To support the patient.

To secure contraction of the uterus fifteen to twenty minims of fluid extract of ergot or five grains of the extract were given every two or three hours, the shorter interval being the preferable one. If the time between the doses be so long as four hours the effect of the ergot is lost, the uterus relaxes, and an increased opportunity for the accumulation and absorption of the products of decomposition is given. The same preparation of ergot does not act with equal power upon all patients, and the dose must be increased until the amount is found which keeps up a firm uterine contraction. It was found that when the uterus was firmly contracted it required less antipyrine to reduce the temperature.

In case II, no antipyretic was necessary to keep the temperature within safe bounds. In cases I, IV, and V, when the uterus remained relaxed, fifteen grains of antipyrine would reduce the temperature only slightly and for a very short time. When the uterus was contracted the temperature could easily be brought down to 100° F.

In giving ergot hypodermically, either Sharp & Dohme's or Squibb's fluid extract are used. And though I have given many such injections, I have seen but one small abscess result. The injections are preferably made into the lower part of the outer side of the thigh. The needle is put straight in to its full length.

To keep the cavity of the uterus clean, in three cases dependence was put in ergot and antiseptic vaginal injections. But I am inclined to think that these cases would have done better had they also had, as did the others, intra-uterine injections. I have used as a vaginal and intra-uterine wash a two per cent. solution of carbolic acid and a 1–4000 solution of corrosive sublimate. At present only the corrosive sublimate

solution is used. A solution of the strength of 1-2000 is kept constantly in the ward and when wanted, either as vaginal or intra-uterine injection, it is diluted with equal parts of hot water. The temperature of the water at the time it is injected should be as high as that of the patient upon whom it is used.

For giving vaginal injections a syringe is used made on the pattern of a Davidson, but with hard rubber finishings. For intra-uterine injections the same syringe is used, with a piece of medium-sized rubber drainage-tube attached. This tube is about one foot long. About two inches of one end of it has large openings cut in it, in the same manner that an ordinary drainage tube is cut. On the tube, a little more than two inches from the same end, two or three turns of silk thread are wound tightly and the ends cut short. The smallest nozzle of the syringe being on the plain end of the tube, is slipped over it. The syringe and tube are then filled with the corrosive sublimate solution, and the tube is introduced into the uterus until the thread can be felt just at the external os. The solution is then forced into the uterus until it returns clear. About a quart is the quantity usually used, though as much as a gallon is sometimes necessary. The nozzle of the syringe is slipped out of the tube; the latter being left in place to assist in the exit of *all* the injected fluid. When the tube comes out of itself, it is placed in a corrosive sublimate solution 1-2000 until wanted.

I prefer the rubber tube for injecting the uterus, for several reasons: It is inexpensive; when used for one injection, or at most for one case, it can be thrown away. The soft rubber is not apt to break up granulations, producing hemorrhage and making another possible route for septic infection. I put the thread on the tube, so that I may know exactly how far into the uterus the tube goes. I have known the smooth round end of a soft rubber catheter to cause bleeding from being introduced too far. The stream of water passing through the small nozzle of the syringe, then through the enlarged and even calibre of the tube, then out of the tube through numerous

large openings, gives necessarily a gentle flow into the uterus. I do not believe it is possible to introduce a soft rubber tube through an os that is not sufficiently patulous to insure a return flow; hence, risk of distention of the uterus and escape of fluid into the peritoneal cavity is avoided.

In efforts to secure drainage of the uterus, the position of the patient must not be neglected. In the earlier part of the puerperal period it is not advisable to allow the woman to get out of bed, but she should be allowed to rise to a sitting posture to pass her urine. Where there is any condition demanding special drainage of the uterine cavity, she should be placed in that position best adapted to good drainage, which at the same time is compatible with her comfort, and at the earliest possible time she should be gotten out of bed.

Antipyrine alone, in fifteen grain doses, was given in four of the cases to reduce the temperature. And in all cases where the uterus was contracted, and the cavity either drained itself into the vagina or had been washed out, there was a fall of temperature of from two to four degrees within an hour. In Case I, where there was no drainage from the uterine cavity, and in Cases IV and V, where the uterus was relaxed, the antipyrine failed to reduce the temperature more than half a degree. The antipyrine was not given at regular intervals, nor was it given with the idea of keeping the temperature chart tracing on a line. But each patient's temperature was taken frequently, and the antipyrine was given to control excessive temperatures.

In one case no antipyretic was used. In one case several hypodermic injections of bi-muriate of quinine and urea, five grains to the dose, were given, but the results were so unsatisfactory that they were not continued.

Case VI was the only one in which quinine sulphate was used, and it was given then for a malarial complication. In this case, also, antifebrine in three grain doses, every three hours, was given with good results.

Nutritious foods, in as large quantities as the patient could be induced to take them, were given at frequent inter-

vals. In no case did the antipyrine disturb the action of the stomach. On the contrary, it was often noticed that within an hour after taking the antipyrine the patient would express herself as feeling much better, and ask for something to eat. In addition, about four ounces of milk were given every two hours. In Cases I and VI, half an ounce of whiskey and half an egg were added to each portion of milk.

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AN ANALYSIS OF TWENTY-FIVE CASES OF INTUBATION.

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[Paper read before the Philadelphia Clinical Society, October 28th, 1887.]

A YEAR ago this month I exhibited before this society a set of O'Dwyer's tubes, and related the history of two cases in which intubation had been successfully practised. I now present a report of twenty-three additional cases, or twenty-five in all. The question has been so frequently discussed *pro* and *con* that I hesitated whether I should again tax your patience with its presentation; but in every new plan of treatment the results are so important in determining its value that I could not resist the temptation. I will make no attempt to answer the many objections to intubation, but will content myself with giving my own experience.

Of the cases here considered, twenty-two were seen in consultation with other physicians; many when the chances of a successful operation were unfavorable. The three cases in my own practice all recovered. One of these was the victim of a second attack, again requiring the tube six months after the first operation.

The importance of early operation is as great in intubation as in tracheotomy. When this operation was performed early, a fatal result was extremely rare. When physicians recognize the fact that dyspnœa even of slight degree is a dangerous symptom, and one indicating operative procedure, the mortality of laryngeal diphtheria will be greatly lessened.

In membranous croup the advent of substernal depression, and in diphtheria the presence of laryngeal symptoms, should be considered indications demanding the practice of intubation. Intubation at this period converts a case of very grave disease into a simple one and we proceed to treat it the same. It is true, this early practice of the procedure will lead to intubation of some cases that would recover were it not done; but it is better that a dozen be intubated unnecessarily than that one case should perish for want of it.

Intubation of itself is not dangerous to the patient. This, I think, is well demonstrated by Case XVIII, seen in consultation with Drs. Warder and Pepper. The child, aged 20 months, had been under the care of these gentlemen for about ten days with an attack of measles, attended by marked catarrhal symptoms. April 11, I was asked to see her by Dr. Warder, and he proposed to introduce a tube, if necessary. She was suffering with marked dyspnœa, showing signs of insufficient aeration of the blood. A tube of suitable size for a child aged two years was inserted. Breathing remained frequent and temperature elevated, indicating some broncho-pneumonia. No membrane was seen then or at any subsequent time. The tube was allowed to remain until the seventh day, but its removal was followed by dyspnœa so marked that it was necessary to reintroduce it. This tube was coughed up afterward; when, breathing still continuing bad, a still larger size was introduced. Frequent attempts were made to do without the tube, but failed, until the twenty-first day, when she was first able to breathe without it. The subsequent favorable progress was uninterrupted.

The procedure was successful in thirteen out of the twenty-five; and by success I mean that the children are still living. I am quite aware that this is quite an unusual result for intubation, as I have not seen any report in which fifty per cent. of the cases were saved. These results are due to the fact that the procedure was carried into execution as soon as opportunity was afforded, in every case, and I am firmly

convinced that a far better record could have been presented had the operation been done earlier in many of the fatal cases.

The youngest child to recover was 16 months old; the oldest, 8 years.

Tracheotomy is generally considered less favorable under 3 years of age. Some operators have questioned the wisdom of its employment in children under 2 years. Looking over my cases, I find that intubation was done eleven times upon children under 3 years, and fourteen times upon those over this age. Of the former, six recovered; of the latter, seven, showing the larger percentage of recoveries in favor of those under 3 years.

Ten cases suffered with diphtheria, the others with membranous croup; of the former, four died; of the latter, eight.

It has been asserted that intubation increases the probability of broncho-pneumonia. While it is true that this disease complicated the majority of the fatal cases, and was, in a large number, the cause of death, it nevertheless was not induced by the use of the tube. My experience leads me to fear this complication more particularly in membranous croup. In diphtheria there is but little tendency to spread below the larynx, while in croup the frequency of bronchial involvement is much greater. To this is due the broncho-pneumonia.

The introduction of the tube does not influence the course of the diphtheria other than by the relief given from the dyspnoea. Where the operation is done after the child has suffered for some time from oppression, even though all difficulty of breathing be removed, blood changes will have occurred which render the vital fluid unfit for the proper discharge of its functions. The lungs soon fill up with serum, and the child drowns in its own secretion.

Case VIII—The eighth of my series of successful cases, seen in consultation with Dr. Eshleman, at the end of twenty-four hours, began to breathe as badly as before intubation. As I had used a size smaller than was suitable for his age, I feared that the tube had passed into the trachea. A careful search failing to discover it about the bed,

tracheotomy was performed, but no tube found, so we were forced to conclude that it had been coughed up and swallowed. This conclusion was confirmed by the passage of the tube two days later. The child recovered.

The tube was ejected by coughing in a number of cases; in some soon after introduction, in others, not until after the patient was able to breathe readily without it. It is very unpleasant to be called away a number of miles, of a cold night, to replace a tube and I was inclined, at first, to endeavor to prevent this accident by increasing the shoulder within the trachea, but a more careful study has led me to think it unwise. The extrusion often arises from blocking of the tube. If it were difficult of expulsion, the individual would rapidly asphyxiate. To avoid early extrusion, the family should be directed not to give the patient anything, even a drink of water, until after three hours, in order that the larynx may become accustomed to its presence.

Some few cases are troubled during deglutition by the trickling of liquids through the tube; but this difficulty may be obviated by more concentrated food, as pap, corn-starch, milk-toast, condensed milk undiluted, jelly, etc.

The tube may be removed in from three to ten days. Its removal is indicated by cessation of febrile symptoms, disappearance of membrane from fauces, etc. The patient should be carefully watched for the first twenty-four hours, as occasionally the difficulty becomes as great as ever.

My experience justifies me, I think, in urging the value of this procedure.

A LEGAL QUESTION CONNECTED WITH INTUBATION.—An interesting question involving the right of a physician to recover his instruments from a dead body, has just come up in New York. Being called to a croupy child, of poor parents, in order to relieve dyspnoea the doctor inserted a tube, and this being swallowed, a second tube was introduced, but the child died. The father refused an autopsy, but the physician insisted upon opening the body to recover his instruments. The question is, had he a right to do so?

HOSPITAL NOTES.

WILLS EYE HOSPITAL.

SERVICE OF PROF. H. EARNEST GOODMAN.

[Reported by H. E. Everett, A.M., M.D., Clinical Assistant.]

TWO CASES OF FACIAL PARALYSIS, ONE MOTOR, THE OTHER SENSORY, CAUSING NECROSIS OF CORNEA.

JOHAN D., white, aged 45 years, a day-laborer, was born in Ireland. On October 11th, while walking over a railroad, trestle bridge, he fell through the bridge, striking the right side and back of his head. The distance was measured and found to be 14 feet 7 inches. He lay where he fell from the time of the accident, 10.30 o'clock at night, until about 6 o'clock the next morning, when he was discovered and picked up by some men going to work. He remained unconscious for about three weeks. About two weeks after the accident he was removed from his home to a hospital in Wilmington, Del., and it was here that he first recovered consciousness. His first recollection was of suffering pain in the right side of the head and the right eye. He observed that his face was drawn to the left side and that he could not close the right eye. There has been, since the accident, great loss of power in the arms and legs, especially in the former, and the right being the weaker. He has always been a moderate drinker; has never had rheumatism nor venereal disease. When admitted to the hospital on December 6th, 1887, the vision recorded was O. D. nil., O. S. 20-xx, O. D. T + $\frac{1}{2}$. The cornea was densely opaque throughout and staphylomatous in form to an extreme degree, due to its softened condition. There was no paralysis of the ocular muscles, muscular co-ordination being unimpaired, but the orbicularis muscle seemed completely paralyzed. The bulbar conjunctiva was moderately injected. The structures behind the cornea could not be seen. There was no wound or other evidence of direct injury to the globe. The pain had at that time ceased.

Ophthalmoscopic examination of O. S. was negative; the patellar tendon reflexes were normal; the grasp of the hands was feeble, especially of the

right. On December 22d, enucleation of O. D. was performed under anesthesia, by Dr. Goodman, without accident.

The after treatment consisted of applications of the galvanic current every other day for three weeks, and the administration of iodide of potassium, gr. x to xxx, which has resulted in considerable restoration of power to the facial muscles, as well as to the eyelids and muscles of the extremities. The eye might have been saved by the early application of a compress bandage.

Michael McG., white, aged 31 years, a coal miner, was born in England. On August 22d last, while at work in a mine, a mass of coal, estimated to weigh a ton, was detached and fell in such a way as to catch his head and press upon it. He was lying upon his back at the time; the space in which he had been working being so small as to necessitate this position. The mass of coal slid down only a few inches and lay against the right side of the man's head, exerting the pressure laterally upon it. He thinks he remained in this position for about three minutes before being extricated by his companions. During this time he was conscious and understood what was said, but was unable to reply. Although the falling mass rested upon the right side of the head, the left was the injured side, because it was in contact with a sharp ledge of coal. There was bleeding from the mouth and nose. The left side of the scalp was severely lacerated. He was confined to bed for one week by weakness and prostration resulting from shock. From the time of the accident the patient noticed a sensation of numbness of the right side of the face, and three weeks later that the face was drawn to the left side. There was loss of feeling in the right side of the tongue and the right cheek, so that he could not keep food between the teeth of that side in chewing. No loss of power in the arms or legs was noted. The left eye and corresponding cheek were bruised and swollen, but it was probably nothing more than a contusion, as these appearances disappeared in a few days, leaving the eye and its vicinity in its natural aspect. The right eye, three weeks later, began to exhibit

inflammatory symptoms; there was not much pain, but vision declined rapidly and was lost in a few days. The eyes became crossed, the right turning in towards the nose. Patient has never had rheumatism, neuralgia or syphilis. He has been a moderate drinker, but has enjoyed good health until receiving this injury. Vision O. D. nil. O. S. $\frac{20}{xxx}$ at the time of his admission to this Hospital, November 17th, 1887. Cornea of O. D. at that time was densely and uniformly opaque. It was absolutely anæsthetic. It could be touched with a feather or a lead pencil without the patient being cognizant of it. The bulbar conjunctiva was injected. There was convergent strabismus, O. D. being the deviating eye. O. S. presented a normal appearance. Ophthalmoscopic examination of this eye showed the eye-ground to be healthy, refraction slightly hypermetropic. Examination of the eye ground of O. D. was, of course, impossible, owing to the condition of the cornea. In spite of the usual treatment, interstitial keratitis followed and the cornea began to ulcerate. It was found that, owing to the anæsthetic condition of the cornea, particles of dust and various foreign matter, not being felt and removed, would collect upon it. The eye was then bandaged and soon the ulceration ceased, and the corneal opacity began to clear. The patient had applications of the galvanic current every other day for three weeks, with the result of restoring sensation in the face and almost complete sensation in the cornea and conjunctiva. Now, two months after his admission to the hospital, the vision is $\frac{3}{80}$ and the condition of the cornea still improving.

THE HEALTH OF THE CROWN PRINCE.

—In spite of the medico-political bulletins, which have endeavored to make light of the throat malady of the Crown Prince of Germany, it is painful to note that the disease apparently is steadily progressing, in spite of the known skill and attention of his medical advisers. Within a few days we have been informed, by dispatches from Europe, that tracheotomy has been performed, and that the symptoms have been temporarily relieved. Extirpation of the larynx would have been better.

CLINICAL NOTES.

TAPE-WORM.—The most successful way to get rid of him is by making him let go with his hooks. You must give him a narcotic remedy. We have one remedy that is the best for the armed worm, "*tænia solium*." Pomegranate I do not believe will ever fail, if properly applied. First clear out the canal. A purgative will not do this. Give remedies that liquefy, such as phosphate of soda, for a few days; then an active purge. The sodium phosphate must be given in the intervals of digestion, in decided doses. Then give:

Pomegranate,.....oz. iv;

Aq. font.....Oj.

Boil down to Oj, and give largely.

(Bartholow).

PERSISTENT HEADACHE.—This man is employed at the chemical works. There is no malady which gives as much trouble as headache. Guarana and such remedies are only good for a time, which speedily expires. The fifth nerve is affected in this case. The remedies that will cure this are few. Treatment: remedies that modify the functions of nutrition; change of occupation, habits, life; amount and quality of air in the sleeping-room, etc. The most valuable remedy is Donovan's solution; the biniodide has more power than any other to destroy germs in the alimentary canal, which we believe to cause intestinal disturbance in this case.

R Liq. arsenii et hydrarg. iod. gtt. iij, ter die.

(Bartholow.)

NON-EPILEPTIC CONVULSIONS.—The patient has been subject to these attacks for fifteen years. The eyes do not move in harmony, owing to paresis of one of the ocular muscles. The third, fourth, fifth and sixth nerves may be affected. There has probably been a lesion in the middle fossa of the skull, pressing upon these nerves. The lesion is most likely a coarse one. The seizures are symptomatic. Treatment: iodide of sodium, one scruple, thrice daily.

Bartholow says that when pilocarpine, mercury, and iodide of potassium are given together, the action of the remedies taken is hastened, in gummata of the brain, and that he has obtained the most happy results therefrom.

Prof. Keyser considers this a most excellent antiphlogistic in iritis:

R Hydrargyri chloridi corrosivi, gr. $\frac{1}{20}$
 Extracti belladonnæ.....gr. $\frac{1}{10}$ M.
 In pill, ten minutes after each meal.

Before his clinic a few weeks ago, Prof. Goodman removed at one operation both breasts of a woman who has suffered severely for some years from interstitial lobular mastitis. Healing was by first intention, and the relief was complete.

In typhoid fever, Prof. Waugh has so far had good success with sulpho-carbolate of zinc. A case was shown at his clinic which had come for treatment when suffering with fetid diarrhoea, high fever and hemorrhage from the bowels. Sulpho-carbolate of zinc at once stopped the hemorrhages, removed the fetor from the stools, and reduced the temperature two degrees. This makes the eighth case in which Prof. Waugh has tried this preparation with similar results.

Prof. Garretson is fond of this treatment for a sessile nasal polypus difficult to snare. He firmly constricts the polypus by means of an ordinary pair of dressing forceps, and allows them to hang on the growth till it sloughs off.

Try the following prescription to abort an attack of acute bronchitis. Prof. H. C. Wood says that it is worth \$5000 to every medical student:

R Potassii citratis..... $\frac{3j}$
 Syrupi ipecacuanhæ..... $\frac{f3j}$
 Succus limonis..... $\frac{f3ij}$
 Aquæ..... $\frac{3iij}$
 M. S.—Two teaspoonfuls every three hours.

For myalgia in a strong man, Prof. Waugh gave

R Ammonii chloridi.....gr. xxx
 Extracti belladonnæ.....gr. $\frac{1}{2}$
 M. S.—As a dose three times a day.

In a case of chronic articular rheumatism he prescribed gr. xx salicylate of sodium with good results; but with the effect of lowering the temperature to 96°. Salol was then substituted with as good results and with no reduction of temperature.

Prof. Pancoast neatly removed from the parotid region a glandular growth which at first appeared to be the

parotid, but which was found to be simply a glandular enlargement over the carotid, having partly absorbed and usurped the place of the parotid gland.

He also exhibited a girl of 9, who had been brought to him a year ago, suffering with Pott's disease in the cervical vertebræ, complicated with spastic contraction of the sterno-cleido mastoids. The first he had completely cured by means of a plaster jacket supporting a vertical rod, from which straps hung to take from the cervical vertebræ the weight of the head. Before the clinic he now cut subcutaneously part of each mastoid muscle, entirely removing the deformity.

Dr. Janney refused to operate upon a case of talipes valgus, although the patient was already being etherized, because the brace had not yet been received. He invariably applies the brace immediately after the operation.

In a case of gastralgia, Dr. Pepper was led to suspect a malignant complication, because of the absence of free hydrochloric acid in the stomach six hours after meals, although the prominent symptoms of cancer of the stomach were absent.

In abscess of the brain, the pus is often acid in reaction. The cause is not known. (Tyson).

Marked pulsation at the supra-sternal notch and over the innominate, in aortic insufficiency, should not be mistaken for aneurism. The beat is not expansile, as in aneurism. (Osler).

Dropsy does not occur in mitral insufficiency unless tricuspid insufficiency co-exists. (Osler).

When convulsions first occur after the thirtieth year, and usually epileptiform in character, suspicion points to cerebral tumor. (Osler).

Chills and fever, intermittent high temperature, and pus in the urine, the urine being acid, point to pyelitis. (Osler).

Several cases of catarrhal jaundice yielded rapidly to the rectal injection of cold water, one to two quarts at a temperature of from 50° to 60° F., as recommend by Krull.

ANTISEPTIC POTION FOR PHTHISIS.—

At Bay View Hospital, Baltimore, Prof. Rohé has been employing a creasote mixture in consumptive cases. The formula used is as follows:

R Creasoti,.....f3 ss;
Glycerini,
Tr. gentianæ co.....āā. f3 ij;
Sp. frumenti.....q. s. ft. f3 viij. M.
S.—Dessertspoonful 3 times a day.

This is a modification of the prescription used in some of the Berlin hospitals. Most of the patients bear it well. Appetite becomes better, sweats and cough diminish and the fever is less. In advanced cases its beneficial effects are less marked. Some patients cannot take it without becoming nauseated. In a small proportion of cases it seems to make the patients worse.

Salol, although given a faithful trial in acute rheumatic cases, does not give as good satisfaction as salicylate of sodium.

MENTHOL IN PULMONARY PHTHISIS.—

In the *Edinburgh Medical Journal*, Beehag gives the results obtained by Rosenberg in two years' experience in the local use of laryngeal and tracheal phthisis.

A twenty per cent. solution of the drug in olive oil is used, which must be slightly warmed, when used, to render it fluid. This is introduced by means of a syringe into the larynx. Two or three injections are made of fifteen minims each directly upon the affected part. After each injection, the patient is to take deep inspirations.

Inhalations of five minims or more of the same solution, from boiling water, should be used, hourly at first. A respirator impregnated with menthol is also advised. The relief from dysphagia is very great.

A cumulative effect is noted: the anæsthesia lasting longer after each application.

The secretion lessens, the surface looks healthier, and ulcers cicatrize; but infiltrations and tumefactions yield less readily than to lactic acid.

The sputa become less purulent, the cough lessens, the voice is stronger and general improvement ensues, and a cure is sometimes effected.

TRANSLATIONS.

ANTIPIRYNE IN CHOREA.—Legroux, on the strength of six observations, concludes that this drug should be considered one of the agents the most rapid, the most sure, and the most innocuous in the treatment of chorea. The time required to produce a cure varied from six to twenty-seven days. One gramme of antipyrine is given in twenty grammes of syrup of bitter orange. In choreic children it may require as much as three grammes in twenty-four hours to obtain the desired effect.—*Revue de Thérap.*

SUMMER SUBSTITUTE FOR COD-LIVER OIL:

R Potassii iodid.,.....2.50 grm.;
“ bromid.,..... 5.00 “
Sodii chlorid.,..... 10.00 “
Aque dest.,.....100.00 “

M. S.—A teaspoonful each morning in a cup of milk.—*Potain.*

STROPHANTHUS.—Poulet, in the *Bull. Gén. de Thérap.*, thus summarizes a study of strophanthus: The physiological action of this drug is to cause contraction of the cardiac ventricles. It has been used principally in cardiac affections where compensation is imperfect. As it is destitute of all vaso-constrictive influences, it is appropriately given in cases of arterial sclerosis, in parenchymatous or interstitial nephritis, in certain hemorrhages, etc., and, as it has no cumulative action, it is suited to all febrile affections in which weakness of the cardiac muscle might cause collapse. Besides, from its special action upon the muscular system, it has great value in paralysis. Lacking the excitant properties of strychnine, it can be advantageously employed during the first period of the malady, where nuxvomica presents serious inconveniences which forbid its use at this epoch, immediately after the appearance of the paralysis. In scarlatinous nephritis, this author regards bleeding as indispensable before giving strophanthus, even in infants of three years. He deduces his indication for strophanthus to hemorrhages coincident with excessive vaso-constrictant pneumonia. The drug lessens the arterial tension, regulates the circulation and slows the pulse. M. Poulet claims to have been

the first to use this drug in paralysis. He finds it useful in hysterical patients, but less so in centric cases.

THERAPEUTICS OF HEAD AFFECTIONS.—

In the treatment of cerebral disorders, the remedies most frequently used are thus grouped by Gingeot:

Phenomena of irritation.....	bromides.
“ compression.....	iodides.
“ adynamia.....	} phosphates.
“ feeble reparative action. }	

Arranged according to the course of the disease:

Bromides.....	for the onset.
Iodides.....	“ middle period.
Phosphates.....	“ termination.

GASTRIC AFFECTIONS DIAGNOSTICATED BY THE USE OF CHEMICAL REAGENTS.—

At the meeting of the Académie de Médecine, held January 18, 1888, M. Germain Sée stated that dyspepsias are chemical or they do not exist. He divides the cases into three classes—those in whose gastric juice there is found no hydrochloric acid; those in which an excess of acid is found; and, finally, those pertaining now to one class, now to another, or in which examination gives no precise result. The first group contains the cancerous, those with organic alterations of the stomach, and also those affected with *dyspepsie marasmique*. In the second group are the anemics and chlorotic patients, and in the third those who have dilatation of the stomach. M. Paul expressed himself as astonished to hear that M. Sée does not accept the diagnostic value of a diminution of urea in cancer. M. Sée replied that this phenomenon may be observed in simple dyspepsia.—*Rev. Gén. de Clin. et de Thér.*

ANTIPYRINE FOR SEA-SICKNESS.—Osian Bonnet recommends antipyrin in sea-sickness. He directs a light saline purgative to be taken each morning for two or three days before embarkation. If, after setting sail, the vomiting be violent, repeated and bilious, the purgative should be continued, or an emetic of ipecac given, preferably on the first evening at sea. Weak tea should be taken, but no food. When the stomach becomes quiet, antipyrine is given in doses of one to two grammes.—*Bull. de l'Acad. de Méd.*

[As the nausea which many persons suffer while traveling by rail is similar to *mal de mer*, the same treatment might be tried.—Eds. P. M. T.]

PERIODS OF ISOLATION FOR ERUPTIVE FEVERS.—Ollivier, in a report read to *Acad. de Méd.*, advises that school children attacked with small-pox be strictly isolated for forty days, counting from the first day of the invasion. The same period should be observed for scarlet fever and diphtheria, while twenty-five days suffice for varicella, measles and mumps. Before the period of isolation has expired, the child should have several baths with soap, his clothing fumigated, the chamber well aired, and before being readmitted to the school, the physician should certify that these precautions have been carried out.

A free discussion followed upon the time necessary for whooping-cough, but no conclusion was reached.

THE RELATIONS OF PLEURISY AND TUBERCULOSIS.—Mesnard adverts to the opinion lately advanced, by Landouzy particularly, that pleurisy is in nearly every case of tubercular origin. It is true that pleurisy is not a rare thing in the antecedent history of the tuberculous. But it is also said that these two diseases are so frequently “*banales*” that their coincidence, even in the same subject, is not surprising, and that it is but natural that a simple pleurisy should prepare the soil for the evolution of tuberculosis.

Practitioners have then the right, beyond question, to refuse to admit the opinion of Landouzy and others.

Mesnard cites cases which demonstrate how much uncertainty exists concerning this theory. He asks of its partisans why, since the specific bacillus is so well known, they have not demonstrated it in ordinary pleurisy, and verified it by inoculation and by culture.

Landouzy's observation is not exact, for chronic pleurisy, even, is often not specific. As to acute pleurisy, in the greatest number of cases, it is not of tubercular origin, as has been shown by numerous autopsies made with the greatest care by Mesnard and Arnozan.—*Rev. Gén. de Clin et de Thér.*

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, FEB. 15, 1888.

EDITORIAL.

THE PENNSYLVANIA REGISTRATION LAW.

THE *Journal of the American Medical Association* refers to the registration law of this State in the following uncomplimentary manner: "In plain terms, the graduate of the medical school of Harvard, or of the medical department of the University of New York, or of the University of Virginia, or of any other medical school in this or other countries outside of the Commonwealth of Pennsylvania, must fee a medical college in the latter State for a verification of his diploma before he enters upon the practice of his profession in that State."

The *Journal* incidentally shows the superficial nature of its information on the subject by speaking of the formation of a State Board for the granting of licenses. No such board has been, or is now, in existence in Pennsylvania. The law of this State places the registration of practitioners in the hands of the prothonotaries of the several counties. Graduates of schools outside of the State must apply to the faculty of a Pennsylvania medical college, not simply for verification of the diploma, but for an examination, the Supreme Court having decided that the endorsement must show not only that the diploma is genuine, but that the applicant has been examined and found qualified to engage in the practice of medicine, etc.

The purpose of the legislators was clearly not to enhance the revenues of

Pennsylvania schools, but to protect the people of the State from incompetent practitioners. Nothing is said about the fee for such examination, but it can hardly be expected that the faculty upon whom the troublesome and unasked duty of holding these examinations devolves, shall perform it for nothing. Nearly all colleges exact a fee of thirty dollars from their own graduates for the final examination and diploma; and in making the same charge for the far more troublesome examination of a foreign graduate, the colleges have been exceedingly moderate. There is no law to prevent colleges making their charge three hundred dollars, if they so desired. The State has no claim upon the services of the faculties as examiners, and as long as the Legislature made no provision for their payment, it is clear that the applicant must do so. He has no claim upon them, either; and if he takes up their time for his own benefit, and in a matter which in no way interests them, he ought to pay for it. It must be remembered that the members of college faculties are men whose time is of value.

But is there a need for any such law? There may be two opinions upon this subject and the writer in the *Journal* evidently believes that no such necessity exists. The experience of those who have held these examinations, however, is of infinitely greater value than the opinion of others who have no practical knowledge of the subject; and the former goes to prove that the Pennsylvania law is a beneficent one. A number of graduates of foreign schools have been found deficient in the rudiments of medicine, without even a comprehension of their own ignorance. Contrary to the common supposition, it is not the American schools alone which send out these poorly educated

physicians. We are so accustomed to the utmost freedom of criticism that our dirty linen is universally washed in public. Every expression going to show that some college has graduated an improper person is seized upon by the foreign press and the culprit made to do duty as a type of our medical corps in general. Within a week we noted in a Canadian journal a quotation concerning some egregious blunder of a Western hedge doctor; and the journal spoke of him as a *sample* American physician!

After over a century of independence, we have not yet ceased to look to the Old World for our norms.

Our young men "finish" in Europe. The European graduate is received here as necessarily qualified, and our subservience is shown by the anxiety with which we ask "what he thinks of America?" The deficient element in the make up of the average male American appears to be self-conceit, which even the large immigration of Germans has not remedied.

In order to show that there are grounds for our position, and that the same search into the operations of foreign medical colleges which is made in those of our own might weaken our faith in foreign goods, we will quote from the Melbourne *Telegraph* of December 14, 1887:

"Certain students failed to pass the ordinary examination; Professor McCoy, under pressure of friendly representations, put these unsuccessful students through a second oral examination on the questions they had had in their possession for some weeks, and passed them. This process, of course, reduces university examinations to a farce. That such a thing should be allowed is unspeakably absurd, and reduces the examination to a laughing-stock. The late examination yielded a harvest of blunders such as would dis-

grace the records of the smallest State school in the remotest country village. This statement seems to us to be literally true. The Council itself, by formal resolution, declares part of the examination to have been conducted in a manner highly improper and unprecedented. Dr. Featherston, with blunt candor, describes this as the greatest disgrace that has ever happened in connection with our medical school examinations. Twenty-three men galloped through the examination in operative surgery in an hour and forty-five minutes. They could not have selected the instruments for the operation. * * * The candidate, who inquired if he had passed, on being told that he had, informed him (the examiner) that he (the supposed candidate) had sent in no papers! The members of the Council, too, drew a veil of convenient silence over the fact that they allowed all the degrees of the present session to be illegally conferred."

It is easy to see that Buchanans are quite unnecessary in Australia—the University leaves no room for the exercise of their talents.

It would be unfair to judge all foreign schools by the low standard of this antipodal "university;" but still the above extract shows that the foreign institution is not necessarily immaculate. If the system of instruction in any of them be of such excellence as to make their diploma a guarantee of its possessor's fitness to practise medicine, it is surely no hardship to such a person to endure the examination of the Pennsylvania schools.

The Pennsylvania Legislature enacted a wise and beneficent law; and their only fault was in not going farther and creating a Board of Examiners, upon which the duty should fall, instead of the college faculties, which are over-worked without it.

W. F. W.

FEES AND FEE-BILLS.

WE are frequently asked about the fees for medical services and sometimes requested to furnish a copy of the "fee-bill" of the College of Physicians. According to our ideas, a fee-bill savors of trades-unions, a sort of unnatural combination to keep up prices, in defiance of the law of supply and demand, an effort to equalize what never has been and never can be equalized, the value of skilled labor. We think, therefore that the College of Physicians acted wisely some years ago when it abolished the fee-bill and admitted the right of each individual to obtain for his services what he thinks they are worth, or as near to this as he can induce his clients to come. Lawyers and preachers never enter into agreements to equalize their incomes, or salaries, and if physicians do so, it is apt to be regarded by the community as a combination to extort higher fees than would otherwise be paid. In fact, physicians promulgate this view when they explain or excuse a disputed bill by referring to the list; or, when they say that they ought to have charged more, "according to our fee-bill." Fee bills are also inconvenient in case of suits at law, because, instead of being interpreted as an average rate, they are taken by the court as establishing the usual and maximum charge in the locality where they are in force. Therefore, they satisfy neither the prosperous and prominent, nor the poor and struggling practitioner.

In fact, the first principle of professional propriety is violated by a list of fixed charges. The physician's fee is, or should be, an honorarium, the value of which is to be determined by the ability of the patient to make such a pecuniary acknowledgement, rather than by the greed of the physician or surgeon. This payment, by tradi-

tion, is supposed to be voluntary, or at least an offering in recognition of services upon which no money valuation can be accurately placed.

Every physician must determine for himself what the amount of his fees must be, in order to make his patients properly appreciate his services. Since it is the general rule that things are valued at what they cost, it is necessary, in order to have proper respect paid to a physician's advice, that it should be paid for. It is not well to have the reputation of being either a cheap or poor physician. F. W.

LETTERS FROM SPECIAL CORRESPONDENTS.

PARIS.

A CLINIC BY CHARCOT; JACKSONIAN EPILEPSY; CHOREA; POISONING BY NICKEL; ANTIPYRIN; PROF. VULPIAN'S SUCCESSOR; BUDIN ON HEAD-LAST DELIVERY; A MICROBE IN THE SALIVA RESEMBLING FRIEDLAENDER'S PNEUMOCOCCUS.

PROFESSOR CHARCOT, at La Salpêtrière, draws usually a crowd of listeners to his clinics. On Fridays, he gives a prepared lecture on a special subject, and on Tuesdays he takes patients as they come and brings out the diagnosis by questions, making practical comments on each case. We give a condensed account of one of these clinics, as they are of considerable interest, Dr. Charcot acting here just as one would on seeing a patient for the first time. A man is introduced.

Dr. C. "What is the matter?"

Patient. "I fall in epileptic attacks."

Dr. C. "Tell us what you know of your attacks."

P. "I am a clerk and sometimes, when writing, the pen drops from my hand and I feel a sort of cramp; then I become faint, my head turns to the left, and my tongue gets between my teeth."

Dr. C. "On which side do you bite your tongue?"

P. "On the left side."

Dr. "Was your hand raised?"

P. "Yes."

Dr. "Gentlemen: This is a case of partial epilepsy. The characteristic phenomenon is the raised hand.

To Patient. "Have you had several attacks?"

P. "About twelve, sometimes as often as twice a day."

Dr. "Do you become quite unconscious?"

P. "Yes."

Dr. "Do you know when you are going to have the attacks?"

P. "Yes, I call out to hold me up."

Dr. "Do you feel your hand raising?"

P. "Yes, sir. The left one."

Dr. C. "This is the rule in such attacks. It is the left hand that twists and raises itself.

"There are certain laws in epilepsy that are nearly always observed, if not quite absolute in character; they arise from the doctrine of cerebral localization. When the left arm is twisted, it is the left side of the tongue which is bitten. There are three categories of partial epilepsy: Facial, Brachial and Crural. In the pure brachial cases, the arm alone is seized with the spasm of agitation. He tells us that he is quite unconscious. Is it natural to suppose that he has some cerebral lesion? It is quite possible that he may be syphilitic as well; if so, it would be lucky for him, because one of the greatest triumphs we have in therapeutics is to see cerebral syphilis certainly and rapidly cured.

"Have you ever had venereal disease?"

P. "No."

Dr. C. "Have you noticed that your attacks get longer or shorter?"

P. "I cannot tell."

Dr. C. "Jackson, of London, has very well described these forms of epilepsy, which I call *Epilepsie Jacksonienne*. Those who believe, with me, in cerebral localization in the brain think that this lesion is situated in the central portion of the frontal and ascending parietal convolutions, and a surgeon may place his trephine over this place and be almost sure to find the lesion. I held lately in my hands, while in London, a small tumor taken from the brain of a patient by such an operation. But what is the actual character of this

lesion? This I cannot tell. If the cause was syphilis, it would be easy to describe it; but it may be a sarcoma or only a local cortical inflammation. A traumatism could thus be the exciting cause.

"It seems that the patient has been treated with bromides; these often reduce or even suppress the attacks; but the man is not cured for all that, and will always have to continue the drug. He denies syphilis; but some have that disease, as you know, without being aware of it; and I propose to try the treatment for that disease. He can afford to try it with the hope of getting rid of a partial epilepsy."

Dr. C. "We have a large class of patients coming here that I desire to present to you, and to warn you that they are a great nuisance. They also form the greater part of the neuropathic cases I see in private practice. Generally, they have a long history of their case written out which they tell you 'won't take long to read.' These are what we call the neurasthenics."

(Patient introduced; he gives M. C. some papers.)

Dr. C. "Ah, I see you are a book-keeper and 29 years old. Does your trouble keep you from working?"

P. "No, sir."

Dr. C. (reading) "You have weight in the head. On which side?"

P. "At the back, and when I go up stairs it seems as though something were pricking me there; and it comes up to the eyes."

Dr. C. "This is what we call the helmet; sometimes it is the back of the helmet, at others the front; again, only the part that falls over the eyes. They feel an oppression over one or all these parts, and it is a very annoying sensation, indeed. I see he is married. How about your sexual functions?"

P. "They are much weakened."

Dr. C. "This is a usual symptom; they are mostly anaphrodisiac. It is possible, also, to find that they have involuntary losses. Do you feel that your ideas do not come freely when writing?"

P. "I feel mostly the great weight in the head."

Dr. C. "Some of them think that they have softening of the brain. Others

feel some pressure from within outwards in the head; again they speak of an iron hand pressing them. In fact, pressure seems to be the prominent symptom. The mental state is such that they work with great difficulty; when they need to think, the headache increases. Mostly, they have vertigo, and feel as if the earth were no longer steady. This is often combined with swelling of the stomach after eating; but the gastric symptoms are not always present, by any means, with the congestion of the head so often spoken of. Do you work hard?"

P. "Constantly, for many hours."

Dr. C. "It often happens that neurasthenia is accidental and is created by the fact of too much mental work. Beard describes the disease well; but it is not only the Americans who suffer with it. They, however, do often push things to excess, so that neurasthenia gets hold of them easily. They often rush over to Europe, go all over Germany, Italy, come to France for a few days, and some call and see me. I can only tell them to go to some one at their homes, for they mostly tell me, 'I have taken my place on such a steamer.' Some of my English brethren send them on long voyages to India. Certainly, rest is needed; but more than this must be done, or they return from such trips without any change for the better. A young man that I sent to the sea-side, after such attacks during his studies, engaged himself to a fisherman and worked at fishing several months and got better.

"This patient had also been given iodide of potassium by his doctor. We will order him three grammes of bromide of potassium per day and every morning he must have a cold douche, continuing twenty seconds on the lower limbs. The temperature of the water should not be lower than 8 to 12 degrees centigrade, and at most it must not be given for more than thirty seconds. This, combined with a request to his employer to give him as much rest as possible, is all we can do in his case."

In a late clinic, M. Charcot presented some cases of chorea. He said, in regard to its therapeutics, that he should restrict it to hydrotherapy, ar-

senic and iron, and, where an anodyne was necessary, he would give chloral in doses of 2, 3 or 4 grammes, or bromides in 4 to 5 grammes. In this connection it may be well to mention that antipyrin has lately been tried in chorea with success, and also that striking results have been obtained with Frehwald's method of using arsenic in subcutaneous injections, using a mixture of Fowler's solution and distilled water, injecting one drop at first, and going up by one daily to eight or ten.

Nickel-plating and lining is now so frequently employed on all sorts of instruments, and even vessels destined for cooking purposes, that it is important to know if it is injurious to health. Quite lately, an Austrian prince was said to have been made very ill by food cooked in a nickel-plated pot; and that government at once decided, on this single case, to give up the use of nickel in its kitchen, at least. In order to test its poisonous qualities a long series of experiments have been made here on dogs and other animals. The acetate of nickel was given in doses up to two grammes a day with but little effect. Some of the dogs vomited if large doses were given, but they got fat on smaller ones and at autopsies no lesions could be found. So that it may be concluded that nickel is wholesome, as it, indeed, is very similar to iron in a chemical point of view, and rarely, if ever, contains arsenic, whereas arsenic is found in many other metals.

Antipyrin seems to extend its uses every day. Dr. Hénocque tells us of its hemostatic and disinfectant properties. For the first it may be employed in powder or in the form of a pomade, or, again, in a solution of 1 to 20 for washing wounds. Epistaxis is stopped by blowing powdered antipyrin into the nose. The drug is also being incorporated into cotton and paper for dressings. In ulcerated cancer of the breast, for instance, a mixture of one part of antipyrin to three parts of vaseline will form a paste that, spread over the ulcerations and covered with wadding (to be renewed twice a week), will prevent bad odor and hemorrhages, so that the action is favorable to cicatrization.

The chair of Experimental Pathology, left vacant in the Paris faculty by the

death of Professor Vulpian, is about to be filled by the nomination of Dr. Straus. This gentleman is a well-known histologist. He was one of those who went out to Egypt to study the cholera, a few years ago, at the time Koch, of Berlin, went. The proposed election of Dr. Straus gives great satisfaction.

"What should be our treatment in head-last delivery, when the head of the fœtus is stopped on the perineum?" This important question is answered by Prof. Budin, who is at present in charge of the "*Clinique d'Accouchement*." Doctor Budin first described a case which had just taken place in the wards where he had performed podalic version. There was a history of deformed pelvis, for the woman had her last child extracted by the forceps. When the child is extracted by the feet, and the head remains, the best method to use is that of Mauriceau, who described it in his book long before the modern obstetricians to whom, sometimes, the credit is given. Dr. Budin gives Mauriceau's own words: "The surgeon can extract the head little by little by slipping his index and second fingers into the child's mouth, while with his right hand he grasps the back of the neck, and, making traction, he disengages the chin first."

In place of putting the fingers in the mouth, Smellie advised placing them on either side of the nose, but this is much less sure than the first plan, and when we now know that it takes at least much over forty pounds pulling weight to cause dislocation of an infant's jaw there is no danger from the old method. But, in Dr. Budin's case, this was not enough; and, notwithstanding considerable traction, the head would not descend. There were no uterine contractions and the child could be felt gasping its last and first breaths, dying, in fact. Dr. Budin then rapidly put the forceps on the head, and extracted the child, which, with some care, was brought to and lived. In brief, it may be stated as an axiom of good practice that whenever the head is coming last, in version, or in breech presentations, after trying Mauriceau's method and it not succeeding, at once apply the forceps to

the head and extract it promptly. Of course, everything should be ready to revive the child in such cases.

M. Netter calls attention to the fact that he has often found a microbe in the healthy saliva that is exactly the same as Friedlaender's famous encapsuled bacillus, which was considered the special microbe of human pneumonia. In other words, it is certain now that at the origin of the respiratory tract a microbe is found which is identical with one which has been thought to have great importance in the pathogenesis of pneumonia. This microbe may be drawn into the lungs, and have nothing at all to do with pneumonia. THOMAS LINN, M. D.

PARIS, January 14, 1888.

BALTIMORE.

AT the annual meeting of the Medical and Surgical Society the following officers were elected:

President, Dr. J. W. Chambers; vice-presidents, Drs. J. H. Scarff and M. B. Billingslea; recording secretary, Dr. W. T. Cathell, and treasurer, Dr. W. H. Norris.

The Baltimore Medical Association, which dates its foundation back to 1866, has elected as its officers, for the present year, Dr. J. Lowrie Ingle, president; Drs. J. T. King and J. W. C. Cuddy, vice-presidents; Dr. J. T. Spicknall, treasurer; and Drs. H. B. Gwyn and A. M. Belt, secretaries.

Dr. J. W. Chambers has been lecturing on surgery in the College of Physicians and Surgeons, this winter, in place of Prof. Coskery, who has been suffering from aphonia. Prof. Coskery has recovered the use of his voice, and had just resumed his lectures, when he was prostrated by a rather singular accident, namely, partial rupture of the quadratus lumborum muscle on each side.

Sanger's modified Cesarean section has been performed here twice this winter: once by Prof. Jay, of the Woman's College, and once by Dr. L. E. Neale, of the University of Maryland. The first patient recovered, but the other died.

Dr. Wm. T. Councilman, for several years past associate professor of pathology in Johns Hopkins University, has been elected professor of anatomy in the same institution.

The Sisters of Mercy have acquired, by lease from the city, the lot of ground known as the "City Spring Lot," adjoining the City Hospital, and will soon begin the erection of a new general hospital.

The Board of Commissioners of Public Schools have petitioned the mayor and city council for the appointment of a sanitary superintendent; whose duty shall be, first, to carefully examine all plans submitted for the construction of new school-houses, and suggest such modifications as may be necessary from a sanitary point of view; second, to advise with the commissioners with reference to necessary alterations in school buildings to improve their hygienic condition; third, to examine all text-books before adoption, in order that type, printing, or paper injurious to the eyesight of pupils may be avoided in selecting such books; fourth, to satisfy himself, by personal examination, if necessary, that all pupils admitted to the schools have been properly vaccinated or are otherwise protected against small-pox; fifth, to take such other measures, in conjunction with the health commissioner of the city, as may be necessary to prevent the spread of the contagious diseases in, or through the medium of, the public schools; sixth, to examine annually the eyesight of all children attending the public schools, and keep an accurate record of such examinations; seventh, to report annually, or as often as may be required by the commissioners, upon the sanitary condition of the schools, and of the pupils attending them, and to advise the commissioners upon sanitary questions connected with schools wherever required; eighth, to give instruction, by lecture or otherwise, to the teachers in the schools upon the elementary principles of school hygiene. Should this appointment be authorized, it would place Baltimore in advance of all other American cities in this particular.

Prof. Michael, of the University of Maryland, has been giving a series of

lectures on "First Aid to the Injured," at Hopkins Hall.

The perennial problem of sewerage is being again agitated here, the impulse being given by the mayor's message in which a system of sewerage is recommended. But the mayor has in view principally the rapid removal of storm water, which is sanitarily of secondary importance. What is needed here, above all, is a system for the rapid and inoffensive disposal of excreta and refuse. For garbage cremation, and for sewage removal, nothing is better than the Waring system of irrigation, which seems to me the most rational method of disposal of waste. The removal of the storm water is a purely economic question, and should not be allowed to complicate the sewerage problem.

G. H. R.

ABSTRACTS AND GLEANINGS.

FLEISCHL'S POLARIZING SACCHARIMETER.—Dr. James Tyson exhibited at the stated meeting, January 25, 1888, of the Philadelphia County Medical Society, Fleischl's Polarizing Saccharimeter, made by Reichert, of Vienna, and explained its use. The deviation is indicated by the displacement of a dark band continuous in two parallel spectra, when no glucose is interposed and the instrument reads 0. When a column of sugar is interposed a deflection takes place, and after the continuity is again restored the *percentage* of sugar is read off from the vernier.

Dr. Tyson said the polarizing saccharimeter could not be recommended for testing qualitatively very minute quantities of sugar, say anything less than one-half of one per cent., Fehling's solution being really more delicate. Nor can it be said that there is any saving of time in testing quantitatively solutions containing less than one per cent.

The advantage of its use is shown in determining from day to day the quantity of glucose in specimens containing considerable amounts, where the requisite dilution and titration occupy much time.

In very clear urines it is not necessary, with Fleischl's instrument, to de-

colorize with acetate of lead solutions, but where they are not almost colorless it is necessary to treat with basic acetate of lead in the proportion of 1 c. c. to 10 of urine and filter, when one-tenth should be added to the reading of the vernier.

THE INFLUENCE OF NIPPING UPON HEALTH.—Death-rate of men, between the ages of 25 and 65, whose occupations expose them to the temptation of "nipping:"

	Liver Diseases.	Urinary Diseases.	Circulatory Diseases.	Nervous Diseases.
Brewers.....	96	55	165	144
Drummers.....	61	44	100	139
Dealers in wines, etc.....	240	83	140	200

Death-rate of men of the same age engaged in occupations not offering temptations to "nipping:"

Farmers and Graziers.....	41	31	84	81
Drapers & Warehousemen..	35	37	75	109
Printers.....	28	30	93	90
Gardeners and Nurserym'n.	18	39	82	63

—Harley in *The Provincial Medical Journal*.

REVIEWS AND BOOK NOTICES.

ATLAS OF THE WORLD; WITH ISOMETRIC INDEX TO EACH MAP. Wm. M. Bradley & Bro., Publishers, Philadelphia, 1888.

There are two works which should be found in the home of every reading man especially if he has a growing family. These are an encyclopædia and an atlas. They should be full, complete, accurate and brought down as nearly as may be to the present time.

If one makes a practice of turning to the atlas to find each city he hears mentioned, of whose location he is not sure and to the encyclopædia for all the information concerning it to be found there, he will gradually win the reputation of being a well-informed person.

The effect of such a habit upon children is not only the accumulation of a fund of knowledge, but the training in accuracy in making such acquisitions. The child who has learned to know a thing thoroughly, so that he is ready to vouch for the strict accuracy of any statement made by him, has a possession of more value than riches,

one whose worth will be realized throughout his whole future career.

Bradley's Atlas is the most magnificent specimen of the kind we have ever seen. The work is especially full in the portion devoted to America. The maps of Mexico and of South America, Europe and Central Asia, show the recent changes in political and commercial respects due to the extension of railways in the former, and the Russia-Turkish and France-Prussian wars in the latter.

In our Western States and Territories the work of hewing out new commonwealths from the wilderness goes on at such a rapid rate that the map-maker is at a serious disadvantage. This, however, is one of the most satisfactory as well as the most interesting parts of the work before us.

The arrangement of the isometric index is such that one can with ease find in a moment any town, however obscure, even though seemingly lost in the multitude of similar places. In some cases, our personal knowledge of parts of the country has enabled us to test the accuracy of the maps, as to the location of railways, etc., and in every instance we have found the present ones correct to the minutest particular.

The work is one which should find a place in every family of culture sufficient to appreciate its value, and the very low price put upon the atlas by the publishers renders this easy of accomplishment.

W. F. W.

THE RULES OF ASEPTIC AND ANTISEPTIC SURGERY. A practical treatise for the use of students and the general practitioner. By Arpad G. Gerster, M. D., Professor of Surgery in the New York Polyclinic, etc. D. Appleton & Co., New York, 1888.

To the lover of books, who delights in seeing his treasures enclosed in caskets befitting their value, this work will be a pleasure. To properly present the 248 photo-gravures which illustrate the book, it is printed upon a paper so thick and so highly calendered as to resemble glazed card-board. This, with the clear and handsome typography and perfect proving, render the work a beautiful specimen of the book-manufacturer's art.

Dr. Gerster has not attempted a systematic treatise on Surgery, for which we are humbly grateful. By limiting himself to the consideration of aseptic surgery, Dr. Gerster has an opportunity to treat his subject with more detail than could be done otherwise. He has widened his field of usefulness by so doing, for thousands of practitioners whose shelves already contain the cyclopædic works of Gross, Agnew, or Holmes, will welcome this book, which sums up to the latest views on modern surgery. We think the author has made a mistake in entitling it a book for students. This class of readers require systematic outlines, rather than fragmentary, though elaborate works like the one under consideration.

Dr. Gerster has written a valuable and interesting book; valuable in that it gives the details of anti-parasitic surgery in the hands of an adept and an enthusiastic believer in it and interesting because it is largely a record of personal experience. The profuseness of the illustrations, and their beauty, add much to the value of the work; and the fact that, as photographs, taken during the operations, they are literally correct—more than counterbalances the obscurity of a few out of their number.

Space forbids any extended quotation from the work; but as we have recently given the views of French and of English surgeons upon the radical operation for hernia, we subjoin the following abstract of the author's views upon the same subject:

In performing the operation for the radical cure of hernia, Gerster asks for full and good anesthesia. He finds adhesions of the omentum the chief cause of "irreponibility," a word which Webster knows not. These adhesions are generally at the anterior portion of the neck of the sac.

The use of the irrigator is discontinued as soon as the sac is open. All lotions used must be mild, to avoid superficial corrosion of the peritoneum. The author prefers Thiersch's boro-salicylic solution.

The operation is practically that of Czerny. Catgut ligatures are used throughout, and the omentum, which is cut away by the thermo-cautery. If the

adhesions are very close, the adherent portion of the sac is excised with the gut and returned together to the abdominal cavity. The sac is then excised. The results in the twelve cases reported are as follows: one case relapsed, the others cured. It is not stated whether trusses were required subsequently to the operation, nor how long a time had elapsed when the report of "cured" was made. This is somewhat disappointing as compared with the very careful manner in which the recent English surgeons record their results. The difficulty, however, of keeping track of patients of the lower class in such a restless place as New York must be very great. W. F. W.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

THE REMEDY IN THE HANDS OF THE PHYSICIAN.

EDITORS MEDICAL TIMES:

THE Relation of Practical Pharmacy to Medicine is the heading of your well-meant editorial of the 15th of November. The remedy which you advise against the encroachment of the druggist is exactly the thing for the druggist, but not for the doctor. It is those very practising druggist-doctors who are stealing the bread out of the physician's mouth. The highly self-opinioned druggist receives credit for the pharmaceutical study by having such credited to him as an equivalent for the first course of study for a physician; he leisurely goes down to a convenient college in the city, and, when spring opens, behold, out comes the M. D. sign. He is then a legitimized counter-prescribing doctor, in a position to criticize the struggling, honest physician, and to upbraid the customers for not coming to him in the first place.

If the respectable apothecaries will not imitate the New Yorkers by pledging themselves to be druggists only, "then the physician should use his pocket case liberally, and compound his own drugs as much as possible." If the *druggist*, by counter-prescribing, whether he holds a diploma or not, grudges the physician's small prescription fee, let him be paid up with his own coin. For years past I have been in the habit of selecting only those druggists to put up my prescriptions who *are druggists and no more*, and if the physicians, one and all, would do the same, I am sure a betterment would soon be observed.

Very respectfully yours,
F. L., M.D.

Editors MEDICAL TIMES:

I noticed an article in the *MEDICAL TIMES* published by you on "Epilepsy due to Ear Disorder." I have a patient four years old suffering with this disease. He has an attack every other day, but they are of short duration, lasting only a few seconds. He was first taken with a violent cold which settled upon his lungs; this is now relieved, but the epilepsy continues. His general health is as good as ever. Please let me know what would be your treatment in such a case.

H. C. B.

SEQUEL TO THE CASE OF BRONCHO-PULMONARY MYCOSIS.

[In the last volume of this journal was published this singular case, the account ceasing when the patient was sent to Texas. It may be of interest to our readers to know what the climate of this, the greatest of our health resorts, has accomplished,—W. F. W.]

Editors MEDICAL TIMES:

I AM still improving, I think; gaining flesh quite rapidly now and am able to stand any amount of exposure and hard living. I have been keeping house in a log cabin, alone, for the last two months. Living on old mutton, Angora goat, venison, frijoles and corn meal, and, as to condition of my health, the last few days have been a pretty severe test. Saturday I rode a rough horse twenty miles, and reached the cabin at 7 P. M. Mercury was at 70°. While I was tying my horse a Norther struck the cabin broadside with a re-

port like a pistol shot, and at 6.30 Sunday morning the thermometer in the cabin was 10°, and outside even 0°. It was snowing and sleeting, and I was compelled to face the Norther for a seven mile ride and then return. Mercury was not above 12° all day, and on Monday but little warmer. On Monday I rode in an open wagon from 10 A. M. till 4 P. M., to San Antonio. I never felt so cold in my life; still I have no cough and feel very, very well, indeed. I expect to leave here in a day or two to take charge of some mining operations in the mountains of Llano county, but will still continue our office here. Dr. Watts tells me that if I keep on improving, or if I have no set-back between now and May 1st, I can with safety go North and live North next winter. My face is becoming quite round, and my skin is the color of a Mexican's. I can walk fifteen miles a day and ride twenty-five miles, and eat and digest anything at any time.

A CASE OF CEREBRAL ABSCESS.

Editors MEDICAL TIMES:

IN December, 1885, I was asked to see a young man who had been sick about seven months, and who had been attended by several physicians. I met these gentlemen at the house of the sick man and after thoroughly examining him came to the conclusion that we had a case of tumor of the brain to deal with. A few days after this the man was moved into a comfortable room near my office and placed under my care. As the case presented some unusual symptoms I watched it very carefully. One Sunday morning, three weeks after my first visit to him, his wife came to my office and informed me that her husband was discharging pus from his nose and mouth. I visited him, immediately, and found a considerable quantity of offensive pus clinging to the walls of the nasal cavity. The attending nurse said that the pus began to run suddenly from the patient's nose, and into his mouth, and that he had removed as much of it as possible with a wet towel. I now changed the diagnosis, substituting abscess for tumor. But where was the abscess? Evidently, judging from the symptoms, it was located somewhere in close

connection with the brain, and, hence, within the cavity of the cranium. If so, how did its contents escape? The man grew rapidly worse and died the following day. The physicians who had seen the case with me were called and a post-mortem dissection of the brain was made. The right hemisphere presented a healthy appearance in all its parts. Near the centre of the middle lobe of the left hemisphere we found a large abscess cavity, the size of which could not be accurately determined; the antero-posterior diameter, however, was very close to two inches. The brain-tissue beneath the cavity appeared soft and macerated. Further examination showed that the pus, after reaching the dura mater, had passed through that membrane by a small opening, then working its way forward by burrowing, finally reached the cribriform plate of the ethmoid bone through the perforations of which it entered the nasal cavity. The sinus, from the opening in the dura mater to the cribriform plate was narrow and tortuous and the bone over which the pus had passed was smooth and worn. There was still a small quantity of pus in the sac when opened, likewise in the passage before described. It had escaped chiefly through a single hole of the cribriform plate and had destroyed the nerve passing through it, leaving the hole entirely free. There was no opening into the ventricles, and the closest scrutiny failed to show that the pus had burrowed in any direction other than the one here described. There was no disease of the ear or of any of the cranial bones.

C. H. DRAKE.

TREATMENT OF SENILE HYPERTROPHY OF THE PROSTATE.

Editors *MEDICAL TIMES*:

THE treatment of this disease is generally more or less unsatisfactory, which is difficult to understand when we reflect how simple is its pathology; yet, if we consider the advanced age and frequently the debilitated condition of these patients, coupled with the danger to which they must be subjected, if operated upon, from uremic infiltration and the like,

we can realize this more clearly. All palliative measures are equally discouraging, both to the physician and his patient. The catheter comes more and more into requisition until it becomes indispensable, and while, if handled only by the medical attendant, this instrument would do but little harm, there is seldom a case where the patient does not soon, himself, learn to use it; he is apt to be irritable and impatient, and often jams his catheter into the bladder so forcibly that, be it never so flexible, considerable inflammation is produced. This results in a chronic cystitis, abscess and numerous other complications which, singly or together, finally exhaust the miserable sufferer.

Having tried several of the methods, and with equally poor results, I was encouraged to adopt that of Dr. S. D. Freeman with a success which has determined me to describe his line of treatment, which is as follows:

The bowels are thoroughly evacuated and the patient is placed in bed upon a hard mattress. A conical steel sound of the proper curve and of a size sufficiently large to somewhat stretch the canal is now introduced along the urethra and, by the aid of the operator's finger inserted into the rectum, is gradually and gently insinuated through the prostatic portion until it enters the bladder. With time and patience this is readily accomplished, though at first it may seem impossible; if much pain is occasioned chloroform may be administered.

The sound is allowed to remain in the urethra long enough to leave an impression upon the tortuosities of its prostatic portion, usually five or six minutes, and is then withdrawn. It should now be immediately replaced by a virgin silver catheter of the same curve, but of a smaller diameter. Having been preceded by the larger instrument, the catheter is generally found to enter with comparative ease, even in very advanced cases of the disease. The instrument is fastened in position in the same manner as after the operation of cutting for stone. The patient is allowed, however, greater freedom being permitted to turn on either side, or even, if this does not cause pain, to have his head and shoulders raised by

pillows till he almost assumes the sitting posture. He can draw his water by simply removing the stopper from the mouth of the catheter and turning half over on the edge of the bed. The bowels can be kept soluble, it being unnecessary generally to lock them up with an opiate. With nervous patients, however, it may be advisable at first to administer a little morphine to act as a calmative. Large doses of chloride of ammonium are administered for their absorbent action. These may be replaced by iodide of potash in syphilitic subjects.

In the course of five or six days the constant pressure of the instrument aided, perhaps, by the ammonium chloride, will have caused complete absorption of those portions of the prostate gland which had formerly encroached upon the urethra, which will be proved by the freedom with which the catheter may be made to glide to and fro. The cure being then complete the instrument can be withdrawn and the medicine discontinued.

This method of treatment *does not* cause irritation or inflammation of either bladder or urethra, but on the contrary tends to diminish that already existing.

There is also nothing to prevent the frequent use of astringent, antiseptic or anodyne washes for the bladder whenever required, as they may readily be introduced through the catheter.

EVAN O'N. KANE.

Kane, McKean Co., Pa.

Editors MEDICAL TIMES:

In an obstinate case of acute articular rheumatism in a girl aged fourteen years, I have diligently and earnestly applied the salicylates, bicarb potassium (in fifteen grain doses) and the alkaline treatment fully. The urine still remains decidedly acid in its reaction. My last resort is the use of acid salicylic crystallized, made from the oil of wintergreen with sugar of milk; this is retained and does not in the least nauseate, while everything before given produced stomach irritation. In addition I had the bed insulated by placing a glass tumbler under each post. What inquiry I desire to make of you and your readers is this: About an hour

after insulating the bed, she began yawning most violently and about every five minutes. The yawns were so long that it gave her great pain; along with it she had a great desire to stretch her arms and legs. This kept up for three hours, when the removal of the glass was ordered and the yawning stopped. The glass was put under the post in twelve hours afterwards, and she has had but slight yawning. Was this singular symptom produced by the glass under the posts or by the five grain doses of crystallized acid salicylic. And what is best to be used to correct acidity when remedies enumerated fail?

G. B. S.

Weston, W. Va.

REQUIREMENTS FOR EXAMINATION BEFORE THE EXAMINING BOARD FOR THE U. S. NAVY.

In reply to several correspondents, we would state that we are informed that there is at present no vacancy in the Medical Corps of the United States Army or in the United States Marine Hospital Service.

In the Navy some vacancies exist, and the Examining Board is now in session in Philadelphia.

The following extracts from the official circular will show what are the requirements:

A candidate must be between 21 and 26 years of age, and must apply to the Honorable Secretary of the Navy for permission to appear before the Examining Board.

The application must be in the handwriting of the applicant, stating age and place of birth, also the place and State of which he is a permanent resident; and must be accompanied by letters or certificates from persons of repute, testifying from personal knowledge to his good habits and moral character and that he is a citizen of the United States.

If the candidate receive a permit, he will notify the President of the Board of the fact, and request him to appoint a time for his examination.

Candidates will be expected to present to the Board testimonials of education and professional fitness.

The Board is required, under oath, to report on the physical, mental, moral

and professional qualifications of the candidate; so that the examinations are necessarily rigid and comprehensive, though simple and practical, and not beyond the attainments of any well-educated physician.

No allowance will be made for the expenses of persons undergoing examinations, which, if uninterrupted, are usually completed within a week.

The pay of an Assistant Surgeon in the Navy is \$1000 per annum "on leave or waiting orders," \$1400 "on shore duty," \$1700 "at sea," and, when at sea, one ration at 30 cents per diem in addition.

ORDER OF EXAMINATION.

1. Physical; 2. Written; 3. Oral; 4. Clinical; 5. Practical.

The Physical examination will be very thorough.

Written examination.—The candidate will be required to address a letter to the Board of Examiners, stating concisely:

1. The date and place of his birth; the school, institution or college at which he received his general education; the several branches studied, including his knowledge of general literature, and of the ancient and modern languages; the exact title of the medical school or schools at which he received instruction, and, if an Alumnus, the date of his graduation; the name and place of residence of his preceptor and the time when he commenced the study of medicine; also the title of the textbooks studied or read on Chemistry, Anatomy, Physiology, Histology, Materia Medica, Pharmacy, Therapeutics, Theory and Practice of Medicine, Principles and Practice of Surgery, Minor Surgery or Mechanical Therapeutics, Medical Jurisprudence, Toxicology, Obstetrics, Hygiene, Biology and Physics.

2. The opportunities he has had of engaging in the practice of medicine, surgery and obstetrics, or of receiving clinical instructions; or whether he has or has not been a resident physician or interne in a civil or military hospital.

3. The number of subjects or parts of subjects he has dissected; what opportunity he has had to become familiar with minor surgery and ban-

daging, chemical and pharmaceutical manipulations, and the physical properties of drugs.

A thesis or short essay must next be written (without reference to notes or books) upon some professional or scientific subject indicated by the Board.

Written answers will then be required to twelve or more questions, propounded by the Board, on the following subjects:

Anatomy, Histology, Physiology, Surgery, Theory and Practice of Medicine, Obstetrics, Materia Medica, Chemistry, Hygiene, Medical Jurisprudence, Toxicology and Physics.

Oral examination.—The candidate will be examined orally upon his literary and scientific acquirements, including general history, natural science and English literature, and professionally upon Anatomy (general, special and surgical), Histology, Physiology, Theory and Practice of Medicine, Principles and Practice of Surgery, Chemistry, Legal Medicine, Toxicology, Materia Medica, Therapeutics, Pharmacy, Obstetrics and Diseases of Women and Children, Hygiene, Microscopy and Physics.

Candidates possessing special knowledge of the higher Mathematics, Astronomy, Geology, Botany, Zoology, Literature, Art and Ancient and Modern Languages, will be given full credit for their proficiency.

The Clinical examination of patients will be made by the candidate at a Naval Hospital, and will include the use of the Microscope, Thermometer, Laryngoscope, Ophthalmoscope and other aids to physical diagnosis; after which he will be required to submit a written clinical report on one or more medical or surgical cases.

The Practical examination will comprise surgical operations on the cadaver, the application of splints, bandages and surgical dressings, the use of the microscope (for clinical purposes and the recognition of pathological or other specimens), and chemical and pharmaceutical manipulations.

We may add to the above that the examination is perfectly fair, and that the Board exacts nothing which a man ought not to know before he is to be trusted with the care of a shipload of

men in mid-ocean, where no help can be had. Furthermore, "influence," political or social, is utterly valueless in this case, the Board being out of the reach of any such consideration.

MISCELLANY.

MURRELL, ON TABLET TRITURATIONS.—Dr. Lauder Brunton defines triturations as being "intimate mixtures of substances with sugar of milk," whilst in the United States Pharmacopœia the following directions are given for their preparation:—"Take of the substance ten parts, sugar of milk in moderately fine powder ninety parts, to make one hundred parts; weigh the substance and the sugar of milk separately, then place the substance, previously reduced if necessary to a moderately fine powder, into a mortar, add about an equal bulk of sugar of milk, mix well by means of a spatula and triturate them thoroughly together. Add fresh portions of the sugar of milk from time to time, until the whole is added, and continue the trituration until the substance is intimately mixed with the sugar of milk and finely comminuted." The introduction of triturations seems not to have been unattended with opposition, for Stillé and Maisch insinuate that their employment is objectionable "on moral as well as theoretical grounds." I should be sorry to take any step which might savor of immorality, but as I found these compressed triturations in general use in many hospitals in the States and as I received the assurance of many distinguished physicians, both of the east and the west, that they had employed them with benefit, I determined to give them a trial. The list of these triturations is a long one, and I have not used them all, but those I have prescribed since my return to England have given such good results that I am encouraged to pursue my investigations.

The first tablet to attract my attention was one containing a one-minim dose of tincture of aconite. These tabloids are lenticular in shape, about the size of a split pea and weigh less than a grain each. We all know the wonderful effects which sometimes follow the administration of aconite in small doses.

Ringer says "perhaps no drug is more valuable than aconite," whilst Farquharson speaks of it as "an excellent antiphlogistic, cutting short inflammatory processes in their early stages." Ringer recommends its employment in small doses when the inflammation is not extensive or not very severe, as in the catarrh of children, in tonsillitis, or in acute sore throat; and Brunton, commenting on the mode of treatment, points out that its introduction has "the very great advantage that the desired effect can be produced with greater certainty and with less risk of an over-dose being given." Mitchell Bruce finds that "medicinal doses of aconite taken in close succession reduce the frequency, force and tension of the pulse, flush and moisten the skin, and increase the amount of urine," whilst other writers are equally enthusiastic in its praise. Following in the wake of these excellent authorities, I have given the tincture of aconite in minim doses in the form of tablets, not only in tonsillitis, but in a number of other acute diseases, such as pharyngitis, bronchial catarrh, common coryza, rheumatism, and even gout, with results which, to say the least, are most gratifying. Ringer points out that the method of employing the drug has much to do with its efficacy. "It should be given without delay at the very onset of the disease, every hour being of importance. Half a drop or a drop of the tincture in a teaspoonful of water should be given every ten minutes or a quarter of an hour for two hours, and afterwards hourly, but if there is much prostration, with a feeble and weak pulse, a still smaller dose may be given." The compressed tabloids have this great advantage over the method of administration usually adopted, that they insure accuracy of dose without the trouble and annoyance of weighing or measuring, and they can be taken at any time and in any place even when the patient is following his ordinary avocations.

The next compressed tabloid trituration employed contained one-hundredth of a grain of perchloride of mercury, and this I have found useful in many forms of diarrhoea, especially when the stools are slimy, offensive, and mixed with blood. Phillips says that for in-

fantile watery diarrhoea this dose acts well, whilst Ringer finds that "the chronic diarrhoea of adults, independent of serious organic change of the intestines, with watery pale stools, often yields to the hundredth of a grain of corrosive sublimate every two or three hours." These statements I confirm, but prefer giving the dose more frequently—every quarter of an hour for the first hour and, subsequently, hourly for five or six hours, or until the symptoms are relieved. This mode of treatment proves equally efficacious in the dysentery of adults, especially when the stools are slimy and mixed with blood.

Tabloid triturates containing one-third of a grain of gray powder given every hour are useful in many forms of dyspepsia, and also in infantile diarrhoea accompanied by vomiting and the passing of offensive watery motions. Ringer finds that a sixth of a grain of gray powder given hourly is of great service in infantile cholera, characterized by incessant sickness with profuse and almost continuous diarrhoea, very offensive and copious motions, watery, colorless, or of a dirty muddy aspect. The same dose, I find, is useful in tonsillitis when the fever has subsided, but the tonsils have not resumed their normal size and condition. In the treatment of the early stages of syphilis these triturates of gray powder will be found efficacious and the same may be said of the tabloids containing one-twentieth of a grain of the green iodide of mercury. They must be given frequently, and their administration may be continued for weeks or even months.

Dr. George Bird, of London, has recently called my attention to the value of calomel in doses of a tenth of a grain as a hepatic stimulant and I have frequently employed it in the form of the triturates for the purpose. I believe you obtain from these small doses given every three or four hours as good an effect as from a single dose of five or even ten grain sand that without inconvenience to the patient. Podophyllin resin in doses of a quarter of a grain every four hours is equally useful. Phillips says: "A single dose of a quarter of a grain or at most half a grain, though sometimes slow in acting, will usually produce watery and bilious purging, and

this effect, instead of being followed by a constipative reaction, will be succeeded by increased and long-sustained action of the bowels."

One of the most useful tablet triturates in the list is the tenth of a grain of sulphide of calcium. I use this for boils, carbuncles, abscesses, suppurating scrofulous glands and other affections accompanied by the formation of matter. The pus is rendered more limpid, discharge is promoted and the inflammation quickly subsides. This is one of the best methods with which I am acquainted of treating a troublesome class of complaints. Many practitioners prescribed the drug in the form of a pill, but I think the tablet triturates are preferable.

The tincture of *nux vomica* triturates, each containing one minim, have proved very useful in the treatment of obstinate constipation, rapidly cleaning the furred tongue and producing a copious action of the bowels. The tabloids are also useful in dyspepsia and in the vomiting of pregnancy. A most excellent laxative compound compressed tabloid triturate is one containing a fifth of a grain of aloin, a sixteenth of a grain of strychnine, an eighth of a grain of extract of belladonna and a sixteenth of a grain of ipecacuanha. I have long employed this formula, sometimes alone and sometimes in combination with the extract of *cascara sagrada*.

Whether the mere fact of minutely subdividing a drug by triturating it with sugar enhances its effect is still a moot point, but it must be remembered that whilst metallic mercury in bulk is almost inert as a therapeutic agent, it acts as a powerful purgative and is capable of producing a marked physiological effect when rubbed up with chalk as in the official gray powder, or when triturated with liquorice-root and confection of roses in the preparation of blue pill.* Other drugs which are usually described as being valueless are stated to have an increased effect when minutely subdivided. Possibly the fact of presenting them in a form in which they can be readily assimilated by the stomach and intestines may afford a sufficient explanation.

My observations have been made with only a limited number of these

preparations, but the list is a long one, and there is plenty of scope for investigation. The tabloids of tincture of belladonna, one minim in each, of hydrochlorate of apomorphine, one-fiftieth, of euonymin, one-eighth, and of the various essential oils, afford promising material. The tabloid of arsenious acid is reputed to be useful in coryza and some forms of diarrhœa; the twentieth of a grain of sulphate of morphine every five minutes induces sleep, whilst the tabloids of tincture of capsicum, each containing one minim, have a reputation in America for the treatment of gastritis and the morning vomiting of dipsomaniacs. Mr. Wyeth points out that triturates to be of any value must be made according to certain definite principles. To begin with, only the purest drugs should be employed, adulteration or sophistication being sedulously avoided. Then they must be genuine triturates, the admixture or combination being perfect, and the drug distributed equally throughout the mass. The tablets must be absolutely uniform in size and must contain in each the exact quantity of the drug which it is proposed to administer. They should be sufficiently consistent to retain their form and yet friable enough to break up into powder when moderate pressure is applied. In the tablets I have examined these principles have been strictly adhered to and they will bear investigation both with the microscope and the balance.—*Practitioner*.

(* Doubtless owing to the partial oxidation of the metal.—Ed. of *Practitioner*.)

IN CASES OF CLAY-COLORED STOOLS in young children, who have been accustomed to rich diet and little fresh air, Prof. Woodbury advises phosphate of sodium in preference to the routine use of mercurials.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 29, 1888, TO FEBRUARY 11, 1888.

PROMOTIONS:

LIEUT.-COL. CHARLES PAGE, SURGEON.—To be Asst. Surgeon-General, with rank of Colonel, Nov. 17, 1887.

MAJOR JAMES C. MCKEE, SURGEON.—To be Surgeon, with rank of Lieut.-Colonel, Nov. 17, 1887.

CAPT. ALFRED C. GIRARD, ASST.-SURG. ON.—To be Surgeon, with rank of Major, Nov. 17, 1877.

MAJOR JOHN H. JANEWAY, SURGEON, CAPT. WM. E. HOPKINS, ASSISTANT-SURGEON.—Detailed as members of the Army Retiring Board in San Francisco, Cal., convened by S. O. 163, A. G. O., July 22, 1886. S. O. 28, A. G. O., Feb. 5, 1888.

FIRST LIEUTENANT H. I. RAYMOND, ASSISTANT-SURGEON.—Ordered to Fort Bidwell, Cal.

FIRST LIEUTENANT W. W. FISHER, ASSISTANT-SURGEON.—Ordered to Presidio of San Francisco, Cal. S. O. 35, A. G. O., Jan. 31, 1888.

FIRST LIEUTENANT NATHAN S. JARVIS, ASSISTANT-SURGEON.—Ordered from Fort Lewis, Colo., to Fort Leavenworth, Kans. S. O. 30, A. G. O., Feb. 7, 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 15, 1888, TO JANUARY 28, 1888.

CAPT. H. G. BURTON, ASSISTANT-SURGEON.—Granted leave of absence for one year, on S. C. D., to take effect when able to travel. S. O. 19, A. G. O., January 24, 1888.

FIRST LIEUTENANT W. W. R. FISHER, ASSISTANT-SURGEON.—Granted leave of absence for one month, on surgeon's certificate of disability. S. O. 4, Dept. Cal., January 20, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 28, 1888.

W. A. WHEELER, PASSED ASSISTANT-SURGEON.—Granted leave of absence for thirty days, January 24, 1888.

J. H. WHITE, PASSED ASSISTANT-SURGEON.—Granted leave of absence for two days, January 26, 1888.

R. B. WATKINS, ASSISTANT-SURGEON.—Granted leave of absence for thirty days, January 28, 1888. Resignation accepted, to take effect March 15, 1888. January 28, 1888.

G. T. VAUGHAN, ASSISTANT-SURGEON.—Appointed an Assistant-Surgeon January 25, 1888, *vice* A. D. Bevan, resigned. Assigned to temporary duty at Marine Hospital, Boston, Mass., January 26, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED FEBRUARY 4, 1888.

D. A. CARMICHAEL, PASSED ASSISTANT-SURGEON.—Detailed as Attending-Surgeon and Acting Chief Clerk, Supervising Surgeon-General's Office, February 2, 1888.

F. M. URQUHART, PASSED ASSISTANT-SURGEON.—Granted leave of absence for twenty days on account of sickness, February 3, 1888.

L. L. WILLIAMS, ASSISTANT-SURGEON.—Ordered to examination for promotion, February 2, 1888.

PHILADELPHIA MEDICAL TIMES.

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CLINICAL LECTURE.

ON A CASE OF SYPHILITIC
ERUPTION WITH CHANCRE
ON THE TONSIL.

BY HENRY J. REYNOLDS, M. D.,

Professor of Dermatology in the College of
Physicians and Surgeons, Chicago, Illinois;
Professor of Skin and Genito-Urinary Dis-
eases, Chicago Polyclinic; Surgeon to the
Department for Genito-Urinary Diseases,
West Side Dispensary, etc.

Delivered at the West Side Free Dispensary.

[Reported by William Whitford, M.D.]

GENTLEMEN: This patient is forty-
five years of age; native of Ireland;
has resided in Chicago for about a year,
having previously lived for several
years in Australia. By occupation he
is a Turkish-bath attendant, but says
he has been out of employment for the
last six months.

We find, as you see, a macular erup-
tion which is generalized over the en-
tire body, giving at the first glance the
idea that it is possibly, if not probably,
syphilitic in character. He says, how-
ever, that he has never had any sore or
chancre on the penis and upon ex-
amination we are unable to find any
evidence of the present or past exist-
ence of one. Let us briefly consider

some of the characteristics of the early
syphilitic eruptions.

In regard to the early eruption of
syphilis I may mention six essential
characteristics:

(1.) There is generally very little
subjective sensation caused by the
eruption. (2.) The lesions are gener-
ally of a livid or coppery color. (3.)
They are almost invariably round, cir-
cumscribed and surrounded by healthy
skin. (4.) The eruption is always
symmetrical, or general, and superficial
in character. (5.) The lesions, though
indolent, are gradually progressive. (6.)
The scales, if any exist, are few and
not adherent.

As syphilis is generally divided into
three or four stages, and we are now
considering the second stage, this sec-
ond stage must, of course, be preceded
by a primary stage, the essential symp-
toms of which are:

(1.) What is known as the initial
lesion, or chancre, which may be found
upon any portion of the body, but not
essentially on the genital organs. (2.)
Bubo, or enlargement of some of the
lymphatic glands most immediately
connected with the chancre, due to
local absorption of the virus from the
chancre, which is generally first seen
during the second week after the
appearance of the chancre, and which

may last for a number of weeks or months. (3.) Syphilitic fever and anæmia, which is generally observed about five or six weeks after the first appearance of the chancre, and immediately preceding the development of the secondary stage or eruption. (4.) A certain amount of soreness of the mouth and throat, which is observed after the development of the syphilitic fever and immediately previous to the appearance of the eruption, and which continues after the appearance of the eruption.

Accompanying the eruption, the characteristics of which we have just described, we find certain other essential manifestations: (a.) Syphilitic fever, which was first observed previous to the appearance of the eruption, but which generally continues until after the eruption is fully developed. (b.) Involvement of the mucous surface of the mouth and throat, in the eruptive process, a condition which is always slightly manifest prior to the appearance of the eruption, but which becomes more marked after it is fully developed. (c.) Enlargement of the post-cervical glands, a condition which is not very well pronounced until after the eruption has fully developed, and which differs from the bubo in the fact that it is due to secondary or constitutional poisoning rather than to local absorption. (d.) The remains of the chancre are generally still visible, as it has in most cases not yet completely disappeared. (e.) The presence likewise of the original bubo, which generally remains some time after the complete disappearance of the chancre.

Now, all the characteristics we have thus far mentioned are essential in every case of syphilis. There are in addition, frequently, certain other symptoms which are, however, not essential; as, for instance, alopecia, rheumatism, iritis, etc., which are really embraced under the head of syphilitic fever.

Now we find upon investigating this case further, all the essential symptoms pertaining to the eruption that we first described, namely, the absence of subjective sensation, the livid or copper-colored character of the lesions, their round shape, their symmetrical and general distribution and superficial

character, their indolent, inactive, but progressive tendency, and in this case the absence as yet of any scales. Now, some of these symptoms may be met with in other diseases, but as the entire combination of symptoms here enumerated are never encountered in any other affection, we are perfectly safe in assuming it to be a syphiloderm. As we have not embraced all the essential evidence in the case, however, let us carry our investigation still further. The patient denies ever having had a sore upon the penis and, upon examination, we are unable to find any evidence of it, but we find upon the left tonsil a peculiar sore, and in the neck and region of the angle of the jaw on the same side a hard swelling as large as a cherry, both of which I may say are very suspicious appearances. We have previously stated that the primary lesion of syphilis, or chancre, may occur upon any portion of the body, there is no part exempt, not even the tonsil, if exposed to the virus. As we have also stated that the bubo or glandular enlargement, due to local absorption of the syphilitic virus from the chancre, is always to be found in close proximity to that region, we naturally would expect, if the sore or chancre were discovered on the tonsil, to find a bubo in just about the locality where we find this hard, indurated swelling. It seems therefore very probable that this sore on the tonsil is the initial lesion representing the primary stage of the disease and that the swelling at the angle of the jaw is the bubo. To further corroborate these conclusions, we find in this case a febrile condition, anæmia, more or less general soreness of the mouth and throat and, further, one of the most infallible of all symptoms of syphilitic disease, viz: enlargement of the post-cervical glands, particularly the gland situated upon each mastoid process, which is enlarged to the size of a bean. I think we are therefore properly justified in diagnosing this as a case of syphilitic eruption, a chancre of the tonsil, and a bubo swelling at the angle of the jaw.

[Patient, when seen a week subsequently, admitted having exposed himself to the syphilitic virus with men in an unnatural way. H. J. R.]

ORIGINAL COMMUNICATIONS.

RAPID DILATATION OF THE CERVIX UTERI; ITS AGENCY IN THE TREATMENT OF FLEXIONS, STRICTURE, ENDO-TRACHELITIS, CONICAL CERVIX, DYSMENORRHOEA, ETC.*

BY YOUNG H. BOND, M.D.,

Gynecologist St. Luke's Hospital, Consulting Gynecologist St. Louis Female Hospital, etc.

TDr. MacIntosh, of Edinburgh, is due the credit of having first directed the attention of the profession to the mechanical cause of certain cases of dysmenorrhœa; and the suggestion of mechanical means for their relief, consisting in gradual dilatation of the cervical canal by means of flexible bougies or metallic rods of gradually increasing volume.

Rigby was the first to use a dilator with steel blades, which were to be opened and left for some time in the cervix. Raynaud of Montauban, Simpson, Sims and various others, sought to accomplish the same ends by the use of various materials as dilators, such as metallic stems, wax bougies, aluminum and other metals.

Simpson and Sims lived to repudiate this method of treatment, and substitute incisions therefor.

In 1871, Dr. J. Protheroe Smith, of London, in setting forth his plan of treatment in certain cases of dysmenorrhœa and sterility, says that after giving Dr. Simpson's plan of incision a fair trial, he gave up the use of the hysterotome and adopted forcible dilatation. He used a dilator made after the model of Heurteloupe's lithotrite, by which he conceived it practicable to dilate permanently the constricted os internum; afterwards, when necessary to give the normal shape to the os tincæ, dividing it laterally at the commissure of the labia uteri.

He confined this treatment to cases of simple stricture of the os internum, and narrowing of the cervical canal and mouth, excluding as inapplicable every case, even of this class, until all inflammation of the parts had been relieved.

His method consisted in accustoming

the uterine canal to the presence of a metal bougie introduced daily, of increasing size to a No. 10; then the dilator was employed cautiously every second day, desisting from dilatation as soon as pain was produced; proceeding after this method, in the course of a few days or weeks, as the case might be, he succeeded in dilating the canal to the extent of an inch or an inch and a half.

After this the dilator was used daily for two or three days, and afterwards at increasing intervals, to maintain the patency of the parts until they permanently healed in a state of distention.

In 1873, Dr. John Ball, of Brooklyn, N. Y., read a paper before the King's County Medical Society, of New York, advocating dilatation of the cervix uteri in a far more rapid, forcible and heroic manner than had ever before been supposed prudent or admissible; and recommending it as a means of relieving stricture, endo-cervicitis, flexions, etc. Accompanying this paper was the report of a number of cases of mechanical dysmenorrhœa, dependent upon the above conditions, which had been completely cured by this daring mode of treatment.

Dr. Ball accomplished at one sitting or treatment, that which Dr. Smith achieved by gradual steps. The one gave to the operation an extensive field of application, the other a limited one. The method as practised by Dr. Ball, with variations of devices and technique and its indications, as presented in his paper, has received the sanction of all who have practised it sufficiently to judge of its merits.

Its utility and worth is fully recognized by the daily practice of such men as Goodell, Wiley, Marcy, Ellinger, Schultze of Jena, and others too numerous to mention.

Almost without exception those who have had extensive experience in this method of treating mechanical dysmenorrhœa and the inflammatory states of the uterus originating therefrom, speak in the most encouraging manner of its efficacy and safety, whilst its chief antagonists are to be found opposing it upon merely theoretical grounds, and not because of any adverse experience in its practice.

*Read before St. Louis Medical Society, stated meeting November 26th, 1887.

The practical ends of most cases of forcible dilatation can be met by one of two degrees of dilatation, viz.: dilatation to a moderate extent, sufficient to permanently increase a cervical canal of relatively moderate insufficiency; to admit of the use of the curette, or the ready and efficient application of remedies to the endometrium and cervical mucous lining to facilitate explorations of the uterine cavity, etc.

This method of dilatation I daily practise at my office.

The second degree is that of divulsion, which always presupposes the use of ether or chloroform. Its chief indication is to be found in the cure of flexions, and conditions incident thereto, the ready and thorough exploration of the uterine cavity for diagnostic purposes, and to facilitate the removal therefrom of tumors, growths, etc., the relief of conical and elongated cervix, stricture and consequent sterility.

Before detailing the minutiae of my method of procedure, in using rapid dilatation, it may be well to remind you, in a general and cursory manner, of the modes of treatment in general use for the relief of those forms of mechanical dysmenorrhœa involving a diminution or interruption, to a greater or less extent, of the uterine or cervical canal.

The generally recognized treatment, for a number of years now, has consisted in either dilatation or incision. The method of dilatation, gradual and rapid; the means of the former, sounds, specula, tents, sponge, sea-tangle and tupelo; the means of the latter, expanding instruments, Ellinger's, Wiley's, Schultze's, Sims', Wathen's and others. Incisions are practised after the method of Simpson, by means of the hysterotome, or that of Sims, or the combined method.

The unsatisfactory results from the use of sounds, their failure to effect continued perviousness of the canal, has caused them to be well nigh discarded in this connection.

Tents are still used to a considerable extent, notwithstanding the fact that they are sadly disappointing in results sought for; a common feature of failure with them all is a want of permanency of the dilatation accomplished. Their action is slow, tedious and uncertain,

involving much loss of time, with very little if any compensating advantage.

The sponge-tent, as a dilating agent, is the most efficient of its class; at the same time the most dangerous, because of its tendency to be followed by septicæmia—a result that has ensued in an uncomfortably large number of instances, notwithstanding the indulgence of much ingenuity in their anti-septic construction and use.

Incisions are wrong in principle, in some instances necessarily uncertain in extent of tissue divided, more or less dangerous, and unless immediately followed by the plug or stem-pessary, or the daily use of the bougie or dressing-forceps, that utterly fail of their purpose.

From practical observation and experience, I have become fully committed to the propriety, wisdom and efficiency of rapid dilatation, for the relief of all forms of what might appropriately be termed obstructive dysmenorrhœa, conditions embraced in stricture, conical cervix, flexions, etc. (There are those who advance extravagant claims for electricity in the treatment of the conditions that I have enumerated. I regard it as an important subsidiary agent, but as a principal agent of treatment I do not believe that it is comparable to divulsion in the correction of strongly established flexions.) I regard it as a most important means to the efficient treatment of endometritis, and of paramount value in the relief of that hitherto most obstinate and persistent disease, endocervicitis. I believe it to be the only rational and successful means of radically curing firmly-established flexions; certainly it is the only means that has accomplished that end in my hands.

In practising forcible dilatation, to a moderate extent, no anæsthetic is required; perfect antiseptic precautions should be observed; exercise immediately thereafter, beyond a moderate extent, should be prohibited.

The method that I pursue in practising dilatation in the second degree, that of divulsion, is the following: Having previously, by careful examination, excluded the possibility of any extra-uterine inflammation or condition, neoplasm, etc., that might contra-indi-

cate the measure; regard having been given to the proper evacuation of the bowels and bladder, and all needed instruments immersed and kept in a five per cent. solution of carbolic acid pending the operation; pledgets of absorbent cotton pressed out of a bi-chloride solution, one to two thousand, being freshly prepared; the patient, thoroughly etherized, is placed in the Sims' position. The vulva and surrounding parts are sponged off with the same strength solution of bi-chloride; a Sims' speculum being introduced, the vagina, cervix and uterine canal are thoroughly cleansed with the bi-chloride solution. The anterior lip of the cervix is seized with a double-hooked tenaculum, and drawn down toward the vulva; then taking in hand a Wiley-Sims' dilator, such as I show you, I dip its blades in pure carbolic acid; and having shaken off any excess of acid, I make them enter the cervical canal, and dilate sufficiently to readily admit of the introduction of the Sims' dilator, which I prefer at this stage, for the reason that the dilatation can, by its use, be regulated more easily as to duration, and its extent accurately determined.

The advantage of the Wiley-Sims' dilator consists in its more ready introduction into a distorted canal, in consequence of its small point and curved direction. I usually consume from ten minutes to a half hour in accomplishing the divulsion, the degree of resistance determining largely the length of time.

The dilator removed, should there exist endo-cervicitis, as is usually the case, with a Sims' instrument I thoroughly curette the mucous lining of the cervix; and then with bi-chloride solution I again cleanse the genital tract, and, taking from a solution of pure carbolic acid, one of Wiley's hard-rubber plugs of suitable length and size, I pass it into the dilated passage, and secure its retention by means of antiseptic tampons.

Should no untoward symptom arise, this plug is left in for forty-eight hours, at the expiration of which time it is removed, and the entire genital passage antiseptically cleansed, and another similar plug introduced, the same antiseptic precautions being observed as

previously; and this course is continued for one week. The plug is then left out for several days, after which it is re-introduced with the same precautions as before, and worn for twenty-four hours, and so on until the approach of the second menstruation following the operation. The use of the plug is intermitted during the menstrual flow, reference to which should determine the time of the operation.

The patient during all the time that the plug is worn is confined to her bed, and almost invariably assumes the dorsal position, it being the most comfortable. Her diet is light and simple during the first week. For the first two or three days after the operation, the bowels are confined and the water drawn off. An opiate enema is administered should the occurrence of pain require it, though the amount of pain complained of is usually inconsiderable.

Rationale.—It is not difficult to understand the rationale of this procedure in the treatment of stricture of the cervix, whether it be congenital or acquired, for by it we tear asunder the circular muscular fibres of the cervix; we rupture them at various points, influenced by their various attachments and relations, one set of muscles here, another there, and so on throughout their whole distribution, rather than at some fixed and definite line, as in the case of the incision.

If the circular fibres of the cervix all acted from the same fixed point, there could not exist the objection to the practice of incision that I entertain, and I believe very justly.

By incision, injury is done to the longitudinal as well as to the circular muscular fibers; by dilatation the integrity of the circular fibers is interrupted at various points, whilst that of the longitudinal fibers being unaffected is exerted in shortening the cervix and increasing its transverse diameter.

And, practically, this is just what I have observed after divulging a conical, narrow and elongated cervix. It is not necessary to amputate any portion of such a cervix, as has been improperly taught, divulsion restoring its normal shape and function. The immediate agency of dilatation in the treatment of endo-cervicitis has already

been sufficiently indicated; its immediate effect lies in removing the stricture or flexion of which the endo-cervicitis is the result.

In treating of the *modus operandi* of divulsion in curing flexions, I do not think it necessary, or essential, that I should enter into any extended consideration of the subject of flexions; suffice it to say, that I regard flexions and distortions as consequences of mal-nutrition of the uterus, occasioned by some infirmity or depravity of the general system; or the result of some local agency, uterine or extra-uterine, involving an embarrassment of the nervous or vascular supply of the uterus; or possibly implicating both the nervous and vascular elements.

As specially pointed out by Graily Hewett, mal-nutrition of the uterus is manifested by undue softness of its walls. The impairment of the condition of the tissues results in a loss of that normal healthy rigidity of the walls of the uterus, by virtue of which it preserves its shape and form amid the buffeting of surrounding organs.

If, during the period of uterine ramolence, the isthmus be fixed by utero-sacral cellulitis, a moderate excess of intra-abdominal pressure will occasion ante-flexion; or if there be fixation of the cervix by the bladder systole, with a position of the uterus favoring retroversion, excessive intra-abdominal pressure will produce retro-flexion. Fixation of the cervix, as indicated by D. Berry Hart, is almost an essential in the dynamics of flexion.

The uterus having once lost its physiological form, flexion having occurred, is unable, by any inherent capacity to effect its own restitution; and when, in the course of events, there comes a repair of the vascular and trophic lesions that led to the undue softness and pliability of its walls, and in consequence there is substituted their physiological firmness, condensation and tenacity throughout, except in certain parts immediately engaged in the flexions, then will be appreciated the anomalous fact that the conditions of health entail a perpetuation of the consequence of disease.

The indications, then, for the cure of an established flexion, will be found to

consist in the re-establishment of the physiological state of the uterine walls throughout; and this can be accomplished more readily, certainly and effectually, by the treatment that I have indicated than by any other means that I know of.

By means of it we break up all adhesions; we straighten the canal; we change the muscular tissues at the point of flexion from an abnormal to a normal state; we establish the circulation upon a new and uninterrupted basis; by it we span the breach of nutrition which led to the flexion, with its chain of pathological consequences, and we release our patient from her protean ills.

ICHTHYOL IN SURGERY.

BY EDWARD MARTIN, M. D.

[Read before the Philadelphia County Medical Society, at a stated meeting, January 25, 1888.]

ICHTHYOL was first described by Schrötter, and used in the treatment of skin diseases by Unna. It is obtained as a clear yellow-brown oil by distilling bituminous matter found in Tyrol, and containing the fossilized remains of fishes and marine animals. By the action of sulphuric acid on this distillate and subsequent neutralization with soda or ammonia, either the sodium or ammonium sulph-ichthyolate is produced. The latter compound is preferred by Unna.

The ammonium sulph-ichthyolate is a reddish-brown, clear, syrup-like liquid, of burning taste and odor, soluble in water, making a clear red-brown solution; also soluble in equal parts of alcohol and ether.

The ichthyol preparations are characterized chemically by their richness in sulphur (ten per cent.), so intimately united that it can only be extracted by complete decomposition (Lartigueau); they easily take up oxygen, acting as powerful reducing agents (Baumann).

Clinically, the ichthyolates are described by Unna as being powerful antiphlogistics, causing anemia and rapid subsidence of swelling in all tissues. This antiphlogistic effect is ascribed to the drug's action on the endothelium of the blood-vessels, depriving it of oxygen in virtue of its reducing properties,

and contracting the lumen of the vessels. This explanation is not, perhaps, entirely satisfactory, but physiological studies have not yet given us a better one. The cornifying effect of the drug on the epithelium of the rete is undoubted.

Surgically, what are the indications for the drug?

Lartigueau states that it is indicated in all subcutaneous and inflammatory tumefactions, oedemas, vascular dilations, incipient furuncles, and local manifestations of rheumatism.

Elliot praises it highly in burns of the first and second degree (five per cent. solutions in water), as producing rapid subsidence of pain and inflammatory symptoms. He finds its application to obstinate varicose ulcers associated with *eczema rubrum* (sodium compounds, three to five per cent.) at times productive of marvellous results. In his hands it is also useful in cicatrices and in a few cases of rheumatism and neuralgia has given immediate and marked relief from pain.

Schweninger states that in rheumatism, lumbago, sciatica, tic, gout, and migraine, local applications of ichthyol act more powerfully in allaying the pain than any other known medication.

Lorenz is astonished at the fabulous efficacy of the drug. In acute and chronic joint rheumatism, acute muscular rheumatism, mastitis, panarititis and contusions, a few rubbings with pure or fifty per cent. ichthyol compounds are peculiarly successful in allaying pain and hastening healing. In chronic and acute joint rheumatism relief often follows a single rubbing, while this is the rule in acute muscular rheumatism. The pain of gout disappears, the shining red skin becoming quickly wrinkled. A beginning mastitis or panarititis is always aborted, or if fully developed the pain is much relieved. Its prompt use prevents the discoloration following contusions. It immediately allays the pain of a burn, and prevents blistering. Finally, a ten per cent. solution hastens the cicatrization of badly healing ulcers.

Lorenz dilutes with water when the pure ichthyol compound cannot be borne, and prevents irritation of the skin by careful washing and drying before each application.

Von Nussbaum states that a single application of ichthyol one part, water four parts, lanolin five parts, has allayed the itching of eczematous ulcers which had resisted all known applications for weeks and months and it also promptly brought about rapid cicatrization on being continued a few days. Arthritic pains, which for weeks had made day and night miserable, are relieved at times in one-half minute after the application of a strong ichthyol ointment. In erysipelas it produces results obtainable by no other means, namely, the immediate arrest of the disease. Von Nussbaum's treatment was first the thorough disinfection and drainage of the wound, then, if the disease continued to extend, over its whole surface was spread a thick layer of ichthyolate and vaseline, equal parts, and covered by a layer of ten per cent. salicylated cotton. The erysipelas advanced not a line further, and in a single day the swelling disappeared, and the red, shining, puffy surface became yellow, brown and wrinkled. This remarkable effect Von Nussbaum ascribes not to the influence of the drug on *Fehleisen's cocci*, but rather to a change produced in the tissues, by virtue of which they cease to favor the growth of the micro-organisms.

Stelwagon has had excellent results in the abortion of furuncles by ichthyol preparations.

Agnew (D. Hayes) considers the ichthyol preparations more powerful than any known therapeutical agent in bringing about reduction of inflammatory enlargements, and has had particularly good results in recently enlarged lymphatics. He uses sulph-ichthyolate of ammonia and iodide of lead, equal parts, applied generously, and covered in by oiled silk.

The writer has used ichthyol in—

(1) Six cases of cervical adenitis, with absolutely no relief; cure being subsequently brought about by iodine or the knife.

(2) Fifteen cases of marked inflammatory induration of the subcutaneous tissues, with invariably a speedy and, in some cases, almost magical reduction, and this after other means had been tried unsuccessfully.

(3) In two cases of furuncle without good effect.

(4) In one case of cellulitis without marked effect till the knife was used. (In this case staphylococci were found, but no chains.)

(5) In four cases where pain was the most marked feature of inflammation, with complete relief in three and no effect in the fourth.

(6) In one case of erysipelas of the scalp, with immediate cure.

The latter is so striking that it is reported in full:

B. C., bartender, aged thirty-six; full-blooded Irishman. Struck on the head by a bottle while intoxicated, December 20, 1887. Two slight wounds of the scalp, to which no dressing was applied; 22d, chill, fever, nausea, great pain in the head and swelling; went to a clinic; wounds were opened, disinfected, and catgut drainage provided; symptoms progressive. He was seen by the writer on the second day of his fever, the fourth from the infliction of the wound; no sleep for two nights; pulse 106; temperature 103°. Violent headache; whole scalp puffy, oedematous and very tender; a few drops of thin pus squeezed from wounds. Cover-glass preparations of blood from puncture by tenotome showed Fehleisen's chains. A saline purge and iron were ordered internally. On the scalp was placed a thick layer of ammonium ichthyolate and vaseline, equal parts. The pain was relieved almost immediately; the patient slept comfortably; his temperature the following morning was 98°, and he was well and remained so.

This is not different from the results obtained by Nussbaum.

With the exception of the case of erysipelas, the writer used a ten per cent. ointment of ammonium ichthyolate in lanolin, fearing lest, in the case of stronger applications, his effects might be ascribed to counter irritation. It is possible that stronger preparations would have proven efficacious in the treatment of adenitis in which the weak ointment signally failed.

The extravagant praises bestowed by some authors on ichthylol savor more of proprietary advertisements than scientific contributions, and the variety of affections for which it is recom-

mended might well make one doubtful as to its complete efficacy in any single instance.

An analysis of the cases in which it has proven serviceable will show, however, that they can be relegated to one of two classes:

1. Affections characterized by inflammatory enlargement.

2. Affections characterized by pain of peripheral origin, probably depending on inflammation or congestion.

For either of these conditions, theoretically, a powerful antiphlogistic would be indicated, so that the clinical indications for the use of the drug correspond to its alleged therapeutic effect.

When the surface is irritated, weak solutions (three to five per cent.) should be used; but when the skin is intact and the subcutaneous tissues are to be affected, pure or one-half strength ointments give the best results. In using strong preparations, the skin should be washed with soap and warm water, and thoroughly dried before each application. Ichthyolates can be combined with any of the ointments, or can be dissolved in water.

The writer's success with the drug, even where it was not used in the most efficient manner, has convinced him that the praise bestowed on it by the Germans is well merited. Where suppuration has actually taken place, the weak ointment is not of service; but in the allaying of inflammatory pain and the resolution of subcutaneous induration (excepting adenitis) the results are most satisfactory.

415 South Fifteenth Street, Philadelphia.

MEMBRANOUS CROUP.—At a recent meeting of the Clinical Society of Maryland, Dr. Latimer related a case of recovery from membranous croup occurring in a child fifteen months old. The treatment consisted in the use of bromide of potassium and lime-water locally, repeated hourly, a mustard bath, and one ten-grain dose of calomel.

The discussion which ensued turned mainly upon the action of digestants upon the false membrane. Trypsin had an advocate in Dr. Jay, but the majority favored papoid.

HOSPITAL NOTES.

PHILADELPHIA HOSPITAL.—Dr. Hearn removed an enchondroma of the finger which had become partly ossified, making the operation practically bloodless and painless by first applying an elastic bandage so as to expel the blood, and injecting a four per cent. solution of cocaine.

Prof. Tyson called attention to the absence of marked pain over the kidneys in the various forms of Bright's disease. He ascribed some of the pains in this region to renal calculi, but the great majority to lumbago.

Dr. McClellan trephined the skull of a man suffering with meningitis following a lacerated wound of the scalp. The outer table of bone had undergone necrosis, and the man had such intense crushing pain that he had made several attempts to destroy himself.

CASE OF OPIUM ADDICTION.—Professor Da Costa presented a case of an opium habitué who had been addicted to the use of the drug for over two years, and who complained of sleeping only about one and a half hours each night, with priapism at frequent intervals, and nocturnal emissions. Tongue white and coated, patellar reflex good but with jerking in lower extremities. Prescribed twenty grains of quinine with two drachms of sodium phosphate, each morning, the latter being given with a view to assist the assimilation of food. He called attention to the careflessness to be observed in prescribing cocaine for such cases, owing to the danger of causing the cocaine habit.

POTASSIUM ACETATE FOR RHEUMATIC PERICARDITIS.—Professor Da Costa showed a case of pericarditis with relapse of acute rheumatism, having rapid action of the heart associated with slight mitral murmur, but giving evidence of no effusion or of pericardial friction. Pulse 114. Temperature a little over 99°. Ordered half an ounce of acetate of potash per diem, with twelve grains of quinine in the morning.

TYPHOID FEVER.—Professor Da Costa showed a case of typhoid fever in an albino, male, 28 years old. Temperature 100.2°, pulse 90; then considerable

diarrhœa to the extent of three or four stools in the twenty-four hours. He called attention to the divulsing of the skin as being sufficient to cause the disappearance of petechiæ without pressing on them. This patient had spots on both legs and arms; also a few spots on face. The lecturer could only recall one other case wherein this general diffusion of the petechiæ existed, the case being that of an albino. The question arose as to whether the paleness of the skin did not afford more opportunity of observing the exactness of number of spots actually existing in a case of typhoid fever; but Dr. Da Costa considered the patient showed a greater number of spots than is generally found in this disease. The diarrhœa was readily controlled with opium. Diet: two pints of milk and one pint of beef tea per diem. Also a tablespoonful of whiskey every third hour, mineral acids every second or every fourth hour, and frequent cold sponging for control of temperature.

DYSENTERY.—In a case of acute dysentery treatment commenced with bismuth, five grains every second hour, with one-fourth grain pulverized opium. Opium was then increased to half a grain, which rapidly checked the number of stools to one at night, which was dark and offensive. Temperature below normal; tongue slightly coated. Diet: milk, bread and rice. Ordered opium suppository of one grain; bismuth ten grains every two hours, with complete rest and quiet. Observed that castor oil or a saline is proper treatment, but not in all cases to be depended upon. Sedative astringents, however, are more to be recommended. There are at present two more cases of dysentery in the wards, so that this disease is one we meet in the winter as well as in summer.

FOREIGN BODY IN THE UTERUS.—Dr. T. G. Morton showed a large hairpin which he had removed from the uterus of a young woman, the pin being removed with difficulty, as it was bent at right angles about one inch from end. He also mentioned a case where a lad had inserted a thermometer tube, minus its bulb, about five inches in length, into his urethra.

DRAINAGE AFTER AMPUTATIONS.—Dr. Morton pointed out the necessity for establishing perfect drainage, as in a case of amputation at the thigh, for sarcoma of head of tibia. Drainage was established on both sides of stump, thereby effectually carrying off the secretions, and abscess or formation of pus prevented. This was shown by the temperature chart not varying after the first thirty hours after operation.

FROSTED FEET—PARTIAL AMPUTATION.—Dr. Morton also showed a case of frost bite of both feet, involving the toes, in which gangrene had resulted, the line of demarcation showing clearly between phalanges and metatarsal bones. Amputation was performed through the heads of the second, third, fourth and fifth metatarsal bones, leaving that of the great toe intact, so as to make as serviceable a joint as possible. Dr. Morton objects to the use of iodoform as being odorous and irritating, and of being of uncertain effect as a germicide, and claims that it is serviceable only as a drying powder. He is of opinion that iodoform is a much better preparation as a non-irritant, and also a much better germicide. He stated his belief that within a year it would be in general use on account of these qualities.

SENILE GANGRENE.—A case of senile gangrene was shown, in a male negro 101 years of age, involving the thumb of right hand. Attention was called to the effect caused by amputation, in that a fresh impetus was thus given of a new circulation to the part, and that charcoal dressings were most advisable in such cases. He also adverted to the association of this disease with diabetes mellitus, and to the importance of testing the urine in old people.

Dr. Wilson presented the following case at the Philadelphia Hospital:

Man aged fifty, never sick until 1865, when he had chills and diarrhoea with fever. Diarrhoea never completely left him. The discharges were light yellow in color and very offensive. When admitted into the hospital his temperature was about 105°, ranging between 103° and 105°. Daily exacerbation, only slight. There was only slight delirium,

spleen enlarged, no gurgling in iliac fossa.

Urine examined, was acid in reaction, 1020-1025, sometimes flocculent sediment, small amount of albumen, no tube casts. He gave a history of having had repeated attacks of intermittent fever, and accordingly, when first admitted, he was placed upon large doses of quinine. The case, Dr. Wilson said, was an obscure one, as all the typical signs were absent upon which to base a diagnosis.

One day the temperature fell suddenly from 104° to 94° in a few hours. This sudden fall was somewhat embarrassing, but in a few hours the mystery was cleared up by the passage of a considerable amount of bright fluid blood, there having been perforation, which made the diagnosis clear of "Enteric Fever." In a few more hours a small amount of dark, tarry fluid was passed, and on the next day the temperature went up again to the typical temperature of enteric fever. The patient is now doing well. No trace of the rose rash had ever been discovered from the first up to the present time. The abdominal tenderness has always been slight. The treatment has been symptomatic from the beginning. After the hemorrhage, he was put upon large doses of morphine and alcoholic stimulants, etc.

Dr. Wilson remarked that enteric fever is a rare disease, after the fourth decade of life. This man had spent many years in malarious districts.

AFTER-TREATMENT OF AMPUTATIONS.

—Dr. Deaver amputated the right arm at the lower part of the middle third of the humerus, for osteomyelitis of the ulna, involving the elbow joint, in a patient about 17 years old, at the German Hospital. He showed the case at the following clinic, and removed the dressing for the first time, where it was found that the wound had healed without any suppuration, except on the external end a very little near the drainage tube.

In speaking of renewal of dressings of wounds, he pointed out that whenever the dressing becomes moist it should be removed, or if fever sets in, and is persistent, which is an indication that there is septic suppuration.

Sloughing, he says, often occurs, and is due, to too great tension of the sutures, which, therefore, should be inspected after each removal of the dressing.

For fever after amputation, he gives:

R Tinct. aconiti.....gtt. jss;
Morphinæ acetatis.....gr. 1-16;
Potassii citratis.....gr. v;
Liq. ammonii acetatis....q.s. f 3 ij;
For one dose, every two or three hours.

In speaking of antiseptic treatment of wounds, Dr. Deaver says, that preparatory to the operation, the parts should be thoroughly washed, and if there is hair on a part, it should be shaved, then wrapped in cloths dipped in a solution of bichloride of mercury 1-1000. If the operator has just examined another patient, he should wash his hands thoroughly, but need not dry them, because germs might be on the towel. If he has seen a case of infectious character, it would be necessary for him also to change his clothing, and possibly, to take a full bath before going to see his patient, if a critical case.

CEREBRAL SYPHILIS.—"When you suspect that a syphilitic gumma is forming in the brain, lose not a moment," says Waugh, "in attacking it vigorously and in every possible way. Give mercury. Give it not only one way, but give it hypodermically, give it by injection and per rectum; and in addition give all the iodide of potassium the patient can stand—half an ounce or more a day. Half way measures are worthless; and the tumor once formed, there is nothing at present known, either in the pharmacopœia or out of it, that will restore the continuity of the broken nerve fibre."

A COUGH OF REFLEX ORIGIN.—Woodbury mentioned at his clinic recently, that a man came to him suffering with a paroxysmal and long-continued cough. Nothing wrong could be detected in the lungs; upon continuing the examination a plug of cerumen was discovered in each ear. The wax was removed and the cough immediately stopped.

PLASTIC OPERATION UPON THE HAND.—For an epithelioma on the hand, Pancoast removed all the hand down to the first row of carpal bones, except the thumb, which was unaffected. He took

out the trapezium and placed the first metacarpal on the first row of the carpus. The wound was afterward shown at the clinic, completely healed, and the thumb had preserved considerable motion in its new position.

PRURITUS SENILIS.—Paræsthesia is a rather frequent concomitant of old age. In a case before his clinic Shoemaker prescribed:

R Plumbi glycerolis.....
Aq. hamamelis destillatæ. aa part. æq.
Apply twice a day.

Also:

R Sodii arseniatis.....gr. j;
Extracti ignatiæ.....gr. ij;
Quininæ sulphatis.....gr. lx.

M. In seventy pills; one to be given twice daily.

FOR A SORE THROAT.—Waugh advised a simple treatment of gargling with salt water and cold compresses to the throat; and to prevent a recurrence, the local application of tannic acid, gr. xxx, glycerine, 3j.

A man who suffers from "intoxication" should not be allowed to sleep it off. Here a salt and water enema is good; or, more stimulating, soap-suds containing about half an ounce of spirits of turpentine. This will generally restore consciousness when emetics or other remedies may be administered.—Woodbury.

INJECTION FOR GONORRHOEA.—In the venereal wards (Bay View), Rohé has used with very satisfactory results an injection of Labarraque's solution, 1 to 10, in gonorrhœa. The discharge stopped promptly in most cases. Care should be taken to get a trustworthy preparation of the liquor sodæ chlorinatæ.

ANTI-PYRETIC TREATMENT IN PNEUMONIA.—Dr. N. T. Carswell, the resident physician, has adopted a treatment in cases of pneumonia which has been very successful. A 15-20 grain dose of antipyrine is given, and followed in two hours with 20 grains of quinine. The temperature is promptly reduced, and never afterward reaches the original point, say 104° or 105°. The patients seem to progress much faster toward convalescence under this treatment than when the usual method of expectant treatment is employed.

ACUTE RHEUMATIC PERICARDITIS.—Dr. Vogler presented a patient twenty-four years old, suffering with pericarditis, combined with endocarditis, due to acute articular rheumatism. The patient was walking around the wards, after getting over an attack of acute articular rheumatism, when he was suddenly seized with a chill and fever, and all the symptoms of pericarditis were manifested. Previous to the last one the patient had had three attacks of acute rheumatism, and endocarditis had followed the second. Dr. Vogler ordered an anti-rheumatic treatment to be resumed. He regarded the heart as analogous to a joint, and said that often the symptoms of severe pericarditis are manifested before the joints are involved. He gave:

Bromide of potash..... $\frac{3}{4}$ vj;
Salicylate of sodium..... $\frac{3}{4}$ vj;
Tincture of colchicum root... $\frac{3}{4}$ j;
Tincture of aconite.....gtt vj;
Peppermint water..... $\frac{3}{4}$ vj;

A dessert-spoonful to be given every two hours.

If the heart be weak, he gives the tincture of digitalis, or the tincture of strophanthus; claiming that the tincture of strophanthus does not disturb digestion, and the contraction of the blood-vessels is not so marked as it is following the administration of digitalis. Externally, he ordered blisters over the cardiac region. Leeches may be used and re-applied after a few days, and the hemorrhage encouraged by employing poultices, with very good results.

In speaking of the treatment of acute articular rheumatism, Dr. Vogler advocates the applying of a belladonna and laudanum ointment, and wrapping the joints in cotton, or even putting them in splints, so that contractions of the muscles cannot take place. Cold applications to the joints he condemns, and says that all the blood is thrown on the internal organs, and heart complications often follow as the result of it.

Internally, he often gives the salicylate of soda, and recommends an alkaline treatment; in general, rest is the best remedy of all. Sweating very often relieves the pain, and to produce it he sometimes gives one dose a day of the fluid extract of jaborandi, from fifteen to twenty drops.

REMOVAL OF THE KIDNEY FOR GUN-SHOT WOUND, WITH RECOVERY OF THE PATIENT.—At the meeting of the Philadelphia County Medical Society, Feb. 8th, Dr. M. Price reported the following case: A young girl, about 15 years of age, while holding a revolver in her hands accidentally shot herself, the ball entering the abdomen. Dr. Price saw the case a few hours afterward, and at once proceeded to explore the abdomen. The right kidney was found to be wounded in its upper part, and the abdominal cavity held considerable quantity of effused blood. As some of the renal vessels were evidently cut, it was decided to remove the kidney; and this was accomplished without much difficulty. The patient had no unfavorable symptoms and made a good recovery. The details of this case will appear later in this journal.

SYMPTOMS OF SPINAL CURVATURE.—When a child complains of weakness on slight exertion, of pain in the abdomen, when it walks with a constrained gait, and picks objects from the floor by bending at the knees only, Goodman advises that the spine be carefully examined for beginning curvature.

QUININE IN JAUNDICE.—Waugh called attention to the fact that jaundice with high fever and epigastric tenderness is usually of malarial origin, and requires very large doses of quinine. He gives from 20 to 40 grains, per rectum, in a concentrated and warm solution. The stomach is usually too sensitive to tolerate a dose large enough to accomplish the cure.

TO AVERT A THREATENED TONSILLITIS, Longstreth advises turpentine. Astringents only harden the tissues. When suppuration is established he uses a solution of tincture of iron.

DR. LONGSTRETH called attention to the probability of uterine or vaginal secretions being the cause of diarrhœa. Injections of permanganate of potassa destroy the morbid products.

RAILROAD CRUSH REQUIRES AMPUTATION.—Dr. Hunt observed that in railroad accidents the soft parts are injured far beyond the laceration. Hence, amputation should usually be performed high up the limb.

REPEATED DISLOCATION.—A letter carrier came into the clinic at the Pennsylvania Hospital to have his shoulder dislocation reduced for the eighteenth time. Dr. Hunt recommended a shoulder-cap in such cases as a preventive of dislocation.

PILES.—Professor J. Ashurst, Jr., recommends citrine ointment. He says that this affection is not varicosity alone, but that there is a growth of new tissue by interstitial exudation. Too much of the mass should not be taken up at once for ligation.

DR. MORRIS LONGSTRETH prefers turpentine as a rubefacient to mustard, especially for application to the neck.

TRANSLATIONS.

TREATMENT OF VARIX BY MULTIPLE LIGATURE OF THE SAPHENA VEIN AND EXTIRPATION.—A radical cure of varix seems to us possible only when the lesions are superficial and limited. As Verneuil has shown, deep varices nearly always precede the development of superficial ones. But if the latter be painful, if the vein threatens to give way, if the limb be ulcerated, if, in spite of the treatment, orthopædic and hygienic (ordinarily so badly applied for the needy classes), accidents are developed by the varices themselves, so-called curative methods of treatment are indicated. These may be classified thus:

1. Destruction of the varices by the bistoury or by caustics.

2. Obliteration by ligature, by denudation, or by intra or peri-venous injections.

Mari reports two cases operated upon by the multiple ligature, in which the cure persisted after the lapse of two years. These are certainly exceptional cases, since varix appears to be usually the local manifestation of a general state, hereditary or acquired; and, however we may succeed in curing the varix, it can scarcely be held that the diathesis is thereby modified.

It is as necessary to review the results long after the operation, before claiming a positive cure, as it is in the operation for the radical cure of hernia.

In publishing these cases he desired to show that by extirpation or ligature

(deprived of their danger by strict antisepsis), considerable amelioration is obtained of the condition, which cannot be removed without operation. The first case had been treated by injections and by caustic potash without benefit. A mass of enlarged veins, the size of a mandarin orange, existed upon the inner aspect of the left knee. This tumor was quite painful and sensitive, and rendered walking almost impossible; while the man was totally disabled from pursuing his customary avocation.

The trunk of the internal saphena vein was tied about ten centimetres above and below the tumor, with small incisions, double catgut ligatures, the incision being made each time between two ligatures. Iodoform dressings were applied, after draining the little wounds with Florentine horse-hair. Three days later the dressings were removed. The wounds were found to have healed, the horse-hair was removed, and the tumor had become hardened by thrombosis. Schwartz did not hesitate now to incise it directly, to tie the afferent and efferent veins and proceed thus easily to extirpate the whole mass. Iodoform dressings were applied after suture and drainage. Absolute rest was enjoined with immobility of the limb. Union by first intention followed without accident. Eighteen days later the man got up for the first. The veins swelled but little; no pain was felt at the knee. He went out six days later in good condition, but advised to wear an elastic stocking. Nineteen months later he reported himself as still in good shape, able to work, but wearing the stocking as a precaution.

The next case was of varicose ulcer. The same operation was performed, and in eight days the ulcer, which had resisted treatment previously, had cicatrized completely. Six months after, the cure was found to be still enduring. The third case had a like happy result.

The final conclusion is, that the multiple antiseptic ligation of varices, with their complete extirpation when forming painful masses, is absolutely indicated whenever the ordinary treatment proves ineffectual, especially in young subjects.—(SCHWARTZ, in *Revue Gén. de Clin. et de Ther.*)

TREATMENT OF TUBERCULOSIS BY PHOSPHATE OF COPPER.—For twenty years the salts of copper have been employed with success at the Hotel Dieu in the treatment of cholera. It is without doubt to their eminently parasiticide action that their efficacy is due. Swiedam and Simon have employed sulphate of copper in pills in tuberculosis, but the doses were too large and the pills were vomited, especially as Swiedam added ipecacuanha to the prescription.

Luton of Rheims has advocated a new treatment of tuberculosis by the salts of copper.

He has availed himself of the stimulant action of copper, as well as the microbicide effect of the cupric salts, by using the phosphate of copper. As this salt is insoluble, he prepares it by double decomposition, so that patients receive it only in the nascent state, in which chemists tell us that remedies exert their most powerful action.

The following formulæ are recommended by Luton:

1. Pills of aceto-phosphate of copper.

Neutral acetate of copper.....0.01 G.;
Crystallized phosphate of soda.0.05 G.;
Glycerine, etc.....q. s.

For one pill.

Dose, six to eight pills daily; to be taken with water in order to develop the reaction.

2. Potion.

Neutral acetate of copper.....0.05 G.;
Crystallized phosphate of soda.0.50 G.;
Syrup of acacia.....125. G.
Take a dessert-spoonful every two hours.

This may be prepared in two potions, each ingredient being given separately and the reaction taking place in the stomach.

3. For hypodermic use.

Phosphate of copper, freshly precipitated.....1.0 G.;
Pure glycerine.....
Distilled water.....âā 5.0 G.
One or two injections daily.

The glycerine should be in excess of the water, in order to hold the salt in suspension.—*Le Bulletin Méd.*

[The last formula directs the injections of one gramme of the salt at once; and as but eight centigrammes are advised in one day when given by the stomach, we think the printer may be at fault.—Eds. P. M. T.]

GASTRO-INTESTINAL ANTISEPSIS IN INFANTS.—Escherich divides antiseptics into three groups; the soluble, such as phenic acid, corrosive sublimate, boric, salicylic, benzoic and lactic acids, creosote, thymol and resorcin; the slightly soluble, calomel, iodoform and naphthaline; and the insoluble, salicylate of bismuth, salol and betol.

Those of the first group have an undeniable microbicide action, if they reach the stomach in sufficient concentration; but they have little effect in the intestines. Here it is necessary to use a medicament like the salicylate of bismuth, which is decomposed only in the intestines.

He holds lavage in high estimation; emptying the stomach completely, and then washing it out with a solution of resorcin ($\frac{1}{2}$ per cent.) or benzoate of soda (3 per cent.); a small amount of which is allowed to remain in the stomach.

To prevent acid fermentation, he forbids milk and sugar, which he replaces with glycerine, saccharine, albuminous water, meat juice and peptones.

For alkaline fermentation he forbids hydrocarbons, especially dextrine and starchy foods; preferring cane and grape sugar, which are almost entirely absorbed by the stomach.

He recalls the fact that, in 1857, Moore caused the putridity of the stools from a child 16 months old to disappear by giving pulverized sugar in teaspoonful doses every two hours. The primary object being to destroy the cause, we possess for this purpose no treatment more prompt and efficient than the antiseptic method.—*Ther. Monatschr.*

METHYL CHLORIDE AS A LOCAL ANÆSTHETIC.—Vidal recommends for local anæsthesia the application of pledgets of cotton wet with methyl chloride. This is efficient in operative procedures, and also for the relief of local pains.—*La France Méd.*

THE TREATMENT OF CARBUNCLE.—Marc Sée believes in the use of the bistoury in the treatment of large carbuncles which demand prompt intervention.—*La France Méd.*

BOUISSI, in *La France Médicale*, finds rheumatismal chorea readily curable by antipyrine.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAR. 1, 1888.

EDITORIAL.

ADVERTISING IN MEDICAL
JOURNALS.

A Western contemporary occasionally indulges in a little criticism of sister journals, on account of their advertisements; and takes pains to proclaim its own purism in this direction. The effect of these strictures, by the way, is materially weakened by the manifest inability of the journal in question to form an advertising clientèle of any description.

As the *TIMES* is assuredly not in the same plight, and as the character of its advertisers is above criticism, it may with propriety discuss this question, in which the subscribers of a journal should certainly be interested. As a rule, every journal must regulate its advertising by its own special conditions; and as these differ, it is hardly possible for one journal to lay down the law for another, and to attempt it would be an injustice.

The *TIMES* has for its readers a class of physicians who object to "inserts" in the reading matter, and the new management resolved to discard this profitable form of advertising as soon as the former contracts expired. The Editors are happy to announce that the present issue is the last in which the insert will appear. But if our neighbor's subscribers do not object to them, we see no moral or professional law which is violated by their retention. It is simply a matter of policy for each journal to settle for itself, whether the annoyance to subscribers outweighs the extra price paid by the advertisers or not.

As to the question of "special notices," this also appears to us a matter of taste. When they are allowed to invade the reading pages, they are objectionable to many persons. But they are now so generally used that the journal which neglects this valuable means of advancing its interests can hardly keep up with its competitors. The special notice is properly an introduction of the advertiser to the reader. The journal acts the role of the master of ceremonies; introduces the guests to each other, and leaves them to pursue the acquaintance as they wish.

We think that we have solved this question very happily by putting our specials, with other matter of interest, but perhaps of only ephemeral interest, in the advertising pages. If a subscriber doesn't like to read them, he needn't turn to these pages; but can peruse his *TIMES* without having even the semblance of an advertisement thrust before his eyes. We have at the same time restored the specials to what we consider their proper sphere, by basing them largely upon actual trial of the articles mentioned. If the test be satisfactory, the fact is noted; if not, nothing is said about it. These notices form, in fact, "working bulletins." They are not the deductions of long experience, but simply transcriptions from the diary of a busy practitioner. The conclusions may be confirmed by further trial, modified, or even disproved. The writer indicates the way for further investigation, which his readers may pursue if they please. The one essential quality about such notes is their truthfulness. They should be strictly in accord with actual experience in every case, or they are worthless.

The advertisements of ready-made pharmaceutical preparations come in for some animadversion. This, too, we

think is often undeserved. Many thousands of physicians in this broad land are compelled to dispense their own drugs. The question of palatable medication is an important one; and yet the time of these men is too valuable to be spent in rolling pills or preparing elixirs. The coated pill and the ready-made and pleasantly-flavored elixir, meet a genuine need, which is attested by their immense sales.

If the readers of a journal be of the class which requires such articles, the publishers should advertise them. In fact, it should be the aim of the managers of a representative journal to embrace in the advertising pages every article which is of utility to the reader.

Still, we think it will be generally admitted that there are some limits which should be observed, even allowing the widest latitude to the individual taste of publishers.

We refused to accept the card of a homœopathic drug house because we doubted the propriety of admitting advertisers who sail under false colors. We have no objection as individuals, to our neighbor's practising on this system if he be so disposed, but we would not aid or abet him in such a course, or recommend others to follow him. When we see how generously the journals are supported by legitimate advertisers, we think it rather ungrateful in the former to assist those whose success involves the ruin of their best friends. Whatever may be the financial straits of a publisher, we do not consider homœopathic advertisements suitable for regular medical journals.

So, also, in cases where an unblushing attempt is made by one firm to usurp the place legitimately won by another. Here is a recent instance. A prominent drug house has spent many thousands of dollars in introducing a valuable product, which is endorsed

very largely by the whole profession. They have advertised it only in a legitimate manner. Another firm appears, with a flaring advertisement in journals of pharmacy, of a preparation alleged to be a perfect substitute for the former, which they offer to druggists at a lower price, recommending it as a substitute for the article which has already won a reputation.

We do not look upon such an advertisement as legitimate, especially for a pharmaceutical journal with claims to respectability. The advice to deliberately substitute one preparation for another, ought for the credit of the druggist, to be expunged from his journals; for it is a fair inference that the advertisement would not appear unless enough unscrupulous druggists were found to make it profitable.

That a firm which employs such methods would be unlikely to maintain a high standard of excellence for their goods, goes without saying.

As to the kind of advertisements, as a general rule, it is held that medical journals should advertise only such things as are used by physicians in their professional capacity; and it will rarely be found wise or profitable for a journal to infringe this rule. But even in these limits, the lines of medical advertising might be widened with advantage. Few journals advertise alcoholic beverages; and yet the purity of such agents is of vital importance to the sick. Sanitary clothing, the selection of schools, the choice of health resorts, and many such matters, are quite as much in the physician's sphere as the prescribing of drugs.

A copy of the *British Medical Journal* before us contains 56 pages of advertisements. Of these 20 pages advertise drugs; 10½ pages, apparatus; 8 pages, books; 6½ pages, asylums; 6 pages, foods; 2 pages, assistantships; 1 page each of schools, wines, and soaps, bring-

ing up the list. Of the 40 pages in the present issue of the *TIMES*, 20 pages treat of drugs, $8\frac{1}{2}$ of apparatus, 2 pages of publications, $\frac{3}{8}$ page of asylums, $4\frac{1}{8}$ foods, no assistantships, $1\frac{1}{2}$ of wines, 1 soap, 1 clothing, $1\frac{1}{2}$ sundries.

It will be seen that there is a perceptible lack of enterprise in the managers of homes, asylums and hospitals; while the publishing houses selfishly keep their advertising in their own hands, in many instances issuing journals of their own.

Insurance companies, especially accident and indemnity organizations ought to be seen more frequently among the advertising pages of medical journals. In fine, anything which may interest or be useful to the subscriber in his professional capacity might be admitted, with propriety, and everything else omitted. We do not forget however, that there are comparatively few medical journals in the world, which like the *TIMES*, are owned and conducted by members of the profession; in the majority of them the editor is not consulted with reference to the business management, and it is therefore unjust to hold him responsible for the advertising patronage of what by courtesy is known as his journal. W. F. W.

THE COMING MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE 8th of May, the day appointed for the next convening of the American Medical Association is not very remote and the indications are that the meeting will be unusually large, and very harmonious. One favorable indication is noticed that there seems to be a general desire all along the line to forget former differences of opinion with regard to dead issues, and to unite in advancing the cause of American medicine and the common interests of the

profession. It is fortunate that the meeting is to be held in Cincinnati, which is somewhat remote from the echoes of the International Medical Congress, and which has a local profession of high repute for courtesy as well as scientific attainment.

The Committee of Arrangements has secured excellent accommodations for the meetings in Music Hall and contiguous rooms, and announces a reduction in railroad fares.

A reception at the Art Museum, and at the Highland House, and a Banquet with a Concert by the Apollo Club, are among the entertainments. Especial effort will be made to have the ladies provided for, so delegates are urged to bring their wives and daughters with them. Those of our readers who wish to read papers at this meeting, are reminded of the necessity of sending a notification one month in advance to Dr. Atkinson, the permanent secretary. F. W.

THE ADULTERATION OF FOOD.

THE bakers of this city who were convicted of using a poisonous yellow dye as a substitute for eggs in cakes, which were sold and eaten with fatal results in several instances and much sickness in others, were sentenced this week to fine and imprisonment. The use of chromate of lead has therefore been justly condemned by the court as a dangerous adulteration constituting a penal offense, although the charge of manslaughter was not pressed. It appears that the salesmen who sold the artificial coloring matter had assured the bakers that it was not injurious, and that the latter were so ignorant of its poisonous character that one of them allowed his family to eat the buns containing the pigment, with serious results. It would seem that to the ordinary non-legal

mind that the bakers were victimized and that the real responsibility rests with the unscrupulous men at whose instigation the "egg-dye" was used.

F. W.

LEADING ARTICLE.

RESPECTING THE NECESSITY FOR ABDOMINAL SECTION IN EVERY CASE OF SALPINGITIS.

THE history of abdominal section and oöphorectomy which were so courageously initiated by McDowell and Battey, and carried on through the stage of vituperation and condemnation by Atlee, and the wonderful toleration of the abdomen and its viscera to operative procedures which has been proved by the results obtained by these operators, has led hundreds of young men, in their praiseworthy desire to relieve pain and restore women to usefulness, to rush to the knife and, by attention to the lessons of Lister, (although discarding his measures), to prosper gloriously. They have saved many lives, they have relieved untold miseries; but is no harm done by this free use of the knife? Is it right to mutilate if life can be saved and pain relieved by other means? True, by means of the knife a quick and brilliant result is obtained and fame and wealth are gained by the operator; but, will not the gynecologist, who by slower and less brilliant methods restores a woman to health and life with all her organs intact, have a more approving conscience? Will not his knowledge of a greater good accomplished more than repay him for some loss of fame and wealth?

In the *New York Medical Journal* of September 24, 1887, is an article on "Support in the Treatment of Ovaries and Tubes," by Sarah E. Post, M.D., which opens with a striking scene. "A few weeks ago there came to the Demilt Dispensary a large, finely formed German woman, twenty-eight years of age, married, and the mother of two children. She complained of pelvic pain, and in the course of the usual routine questions, I asked her when she had last menstruated. She replied: 'I had an operation in — Hospital two

years ago, and I have never had my blood since.' Then she broke out in a despairing cry: 'I did not know that I would have no more children, and that I would never more have my blood.' Trying to defend the absent, I suggested that she had had a good deal of pain before the operation, that she had been relieved of this, etc. She turned fiercely upon me. 'What is pain,' said she, 'I might better have children, though I die.' It is not every woman who would take this view of the case, but there are undoubtedly many young married women who desire to have children, but in whom inflammatory disease of the tubes prevents conception. Shall we say that the only means of relieving these sufferers is by removing the seat of the disease by a surgical operation? Can they not possibly get well un mutilated, and be the mothers of children? While from the majority of operators a negative answer is given to these questions, I think there is sufficient evidence to warrant an affirmative reply as regards some of the cases, and that such good results have been obtained by treatment other than operative, in restoring the pelvic organs to a condition of comfort and functional activity, that we are called upon to be more conservative, and not sacrifice the uterine appendages as soon as we discover a watery or purulent collection in one or both of the Fallopian tubes.

Dr Polk (in the *Transactions, Amer. Gynec. Soc., Sept., 1887*) says, "The general course or prognosis of salpingitis may be expressed by saying that the majority of these cases recover."

Dr. A. Martin, of Berlin, Germany, remarks: "It has been very often supposed that salpingitis is of gonorrheal origin but only a very few cases have shown the gonococcus located in the tube." That we could succeed in curing a large majority of these cases by general treatment he could prove by his own statistics.

Dr. T. H. Emmett was "satisfied that two-thirds of the cases operated upon to-day would not be operated on five years from now."

Dr. Bantock, of London, has "frequently found only a small quantity of cheesy matter as though nature was

capable of effecting a cure even in these cases."

Dr. Emmett remarked "That pelvic inflammation does occur, and quite as commonly among the unmarried as among the married, and he knew that it often cured itself."

The operations classed together under the general head of abdominal section have been condemned because they robbed the woman of all chance of ever becoming a mother. This responsibility on the part of the operation has been denied and the assertion made that the woman was already made sterile by the salpingitis. In the *Amer. Jour. Obst.*, 1887, p. 1310, (abstract from *Ztschrift. f. Geb. u. Gyn.*, xiii., 2) Dr. A. Martin asserts that during the existence of a salpingitis, even when unilateral, the patients are ordinarily sterile. If cure of the disease is effected, however, the patients may conceive, as he noted in four of his cases. He also states in the same paper that the majority of the simple cases (where no micro-organisms are present) tend towards cure.

How can this tendency towards cure be strengthened? The general treatment of the cases selected as being capable of cure without operation is based upon rest and support of the ovaries and tubes.

"Vaginal pressure" in the treatment of chronic pelvic disease was introduced by Dr. Taliaferro, of Georgia, in 1878. This original pressure was obtained by tampons of cotton, wool and other substances, plain or medicated, and it has been brought to a perfection of method and detail by George J. Engelmann, M. D., of St. Louis, Mo. In the *American Journal of Obstetrics* 1887, pages 561-580 and 685-706, will be found a complete exposition of this method of treatment. This procedure is safe; it affords immediate comfort; its effects are mild and continuous; rest is given the pelvic viscera; the treatment is clean and antiseptic; and all the pelvic viscera are influenced. The tampon acts as a support to hold in place the uterus or other of the pelvic viscera, and as a compressor; it acts as a stimulant to the tissues; it is a splint to steady the parts and to give rest; it cleanses and renders them

aseptic by absorbing the discharges, keeping the vaginal walls dry and clean, and it can be made the carrier of remedial agents by inclosing the remedy within it, or by using a medicated cotton covering over the elastic body of the tampon. Well prepared sheep's wool, fine, white and clean, makes the best supporting tampon. Its use should be continuous, or almost so, and hence it should be renewed every second or third day. For all details of the form, size and make up of the tampon, the method of its insertion and removal, the combination with it of medicated cottons and powders, and the treatment of the patient, who need not be confined to bed, we can only refer our readers to the original article, which can only be marred in an abstract.

Dr. Post (in the *New York Medical Journal*, 1887, page 342) states that after placing the tampons in position immediate relief is, as a rule, obtained where the ovary is not adherent. Dr. Post has also used, with great satisfaction, the "old inflated ring pessary," and gives the history of three cases of salpingitis, in one of which there was apparently a discharge of the purulent contents of the tube through the uterus. In these cases the prolapse of the tube and ovary were reduced and all pain and tenderness were relieved.

W. H. H. GITHENS, M. D.

STRANGULATED HERNIA.—Gerster, of New York, says the incision in herniotomy for strangulation should extend well above the inguinal or femoral ring, and should freely expose the place where the hernia escapes from the abdominal wall. By doing this the surgeon will be enabled to divide the constricting band under the guidance of the eye, and without the necessity of inserting the probe-pointed knife into the inguinal or femoral canal, a circumstance that may, even in the hands of a cautious and expert surgeon, lead to cutting or laceration of the intestine, especially if it be very brittle, or necrosed, or adherent.

It must be admitted that this often practically converts herniotomy into laparotomy.

LETTERS FROM SPECIAL CORRESPONDENTS.

LONDON.

UNIVERSITY SCHEMES.—THE NURSING OF THE SICK POOR IN THEIR OWN HOMES.—A PENSION FUND FOR NURSES.—EXCISION OF TUMOR OF THE SPINAL CORD.—LAPAROTOMY FOR RUPTURE OF THE BLADDER.—POISONING BY ANTIPYRIN.—SCARLET FEVER AND VARCINIA.—PHYSIOLOGICAL ACTION OF THE BETEL NUT.—TOKELAU RINGWORM.—TREATMENT OF INTESTINAL OBSTRUCTION DUE TO GALL STONES.—THE LATE MR. GEORGE GODWIN.—A NEW SOCIETY, ETC., ETC.

There is a general opinion that something ought to be done for the medical students of the London schools in the matter of degrees in medicine, but I have already, in letters which I have had the honor of addressing to you during the last two years, indicated that several conflicting schemes have all had vigorous supporters. The Royal Colleges of Physicians and of Surgeons have applied to the Privy Council for a charter, giving them power to grant the degrees of M. B., B. Ch., and M. D. to persons passing the examination of their conjoint board, and to many this seems to be a complete solution of the difficulties of the situation. Such persons however, ignore the fact that it is not the students of the medical schools alone who are feeling the want of university degrees; students of science, literature and music are in the same unfortunate position. The Association for Promoting a Teaching University for London, has petitioned for the formation of a University by the bringing together of the scattered teaching institutions in London. University and King's Colleges have petitioned that they should be made the nucleus around which other collegiate bodies would thus be gradually clustered, and, apparently with a hope, a vain hope, of conciliating opposition, have suggested that the medical degree would only be granted to persons who had obtained a license to practice from the Conjoint Board of the College of Physicians and Surgeons. The University of London, (the Imperial University as the other

party would have it called), has asked to be allowed to reform itself, and the three licensing bodies in Scotland: the Royal College of Surgeons and the Royal College of Physicians of Edinburgh; and the Faculty of Physicians and Surgeons of Glasgow—not to be behindhand—have now petitioned for a “Senate of Physicians and Surgeons of Scotland,” This last petition is in fact a *reductio ad absurdum*: the movement in London had its origin in a belief among London teachers that they were unfairly handicapped by the facility with which a degree as distinguished from a license could be obtained in Scotland.

A committee of influential and energetic ladies collected last year a sum amounting to eighty or ninety thousand pounds sterling, as a jubilee present to the Queen, who was asked to spend it in any way she liked best. Part of it was expended on the inevitable statue of the Prince Consort, but the remainder, amounting to over seventy thousand pounds, the Queen intends shall be used for developing the system of nursing the sick poor in their own homes. There are already a series of organizations at work in various parts of London and in other towns, and during the last decade a great deal of good has been done, the nurses who have all received a complete hospital training, live together in a home from which they sally forth every morning on their round of visits. Among the nurses are many ladies by birth and education, and when a new case is put on the books one of these ladies accompanied by another nurse immediately visits the patient and does all that a trained nurse can do to contribute to the comfort of the patient and to carry out the directions of the attending practitioner; if a written message is left for them they will administer enemata or injections, dress wounds and will take the temperature, making as many as three or even four visits during the twenty-four hours if necessary. They are well-known and highly appreciated by the officers of most of the maternity charities in London, as their services are always readily given in cases of fever after parturition, though they do not undertake the nursing of ordinary confinements. It is in-

tended to link the new scheme with a very old charitable foundation which was originally endowed by Queen Matilda in 1148. The hospital stood within the liberty of the Tower of London and was dedicated to St. Katharine. After eight and a half centuries, it still retains to a very large extent its original constitution, being one of the few religious homes which escaped confiscation by Henry VIII; it has been reformed time and again, but seems to have had a tendency to fall again into lazy or evil courses; it consists of a master, resident brethren and sisters, sixteen sisters, bedswomen and bedsmen, and a constitution which would require little modification to make it answer the purpose to which it is now about to be diverted. The hospital has never discharged the functions which now attach to a hospital. It was rather a small religious community charged with the duty of saying masses for the good of the souls of the Queen consorts of England and visiting the poor; the former has ceased for three centuries to be considered necessary, but the latter it is thought may now with advantage be defined and extended to mean the nursing of the sick. There is a further special appropriateness in turning St. Katharine's Hospital to this use, as all the appointments to the community have always been in the hands of the Queen and consorts of England; it is in fact stated to be the only patronage which, as such, they possess; even during the life-time of the present Queen, appointments were not made by her until the patronage fell to her by default. In coming to the decision to expend the gift in this manner, the Queen has acted on the advice of two eminent members of the medical profession, Sir James Paget and Sir Rutherford Alcock, and of the Duke of Westminster.

The Hospitals' Association was founded a few years ago, mainly through the exertion of Mr. H. C. Burdett, at one time Secretary of the Dreadnought Hospital for Seamen, at Greenwich, but now Secretary of the Stock and Share Department of the London Stock Exchange; it discusses questions connected with the maintenance and administration of hospitals. Lately Mr. Burdett and his colleagues took up a

suggestion to found a National Pension fund for nurses and hospital officers on a provident principal. To do this, however on the scale contemplated, it was necessary to deposit twenty thousand pounds with trustees; the Hospital Association hoped that the Queen would give part of the Woman's jubilee gift for this part. Within a few days of the publication of the Queen's decision to devote the money to another, and as it seems to me, more appropriate purpose, it was announced that four merchants of the City of London (Hambro, J. S. Morgan, Hucks Gibbs, and Rothschild), have undertaken to provide the necessary twenty thousand. It is reported that over fifteen hundred nurses and hospital officers have already sent in their adhesion, and that there is every reason to expect that the fund will be successful. Certain hospital matrons however, have recently withdrawn from the Hospital Association, and have formed a separate organization of their own for the registration, and these ladies will not, it is rumored, assist Mr. Burdett, whose associates has also suffered by reason of the resignation of Sir Andrew Clark, who was impelled to take this step on account of the objection, raised by the Royal College of Physicians to the rather obscure relations between the Hospital Association and a journal called *The Hospital* which it considered to be a quasi medical paper. Sir Andrew has been succeeded by Dr. Bristowe.

A remarkable case which will become historical, was shown at the last meeting of the Royal Medical and Chirurgical Society. The patient was an officer in the Royal navy who had placed himself under the care of Dr. W. R. Gowers, on account of complete loss of power and almost complete loss of sensation below the level of the fifth intercostal nerve. The limiting line of anæsthesia was well defined on the left side, less accurately on the right, but it did not reach higher than on the left; very severe pain, which was most intense at a tender spot just below and inside the lower angle of the left scapula, had been present for three years. The diagnosis of tumor of the spinal cord was made, and the intense pain combined with the other circumstances of the case to render an opera-

tion justifiable in this case if ever. Mr. Victor Horsley undertook the operation, he removed the spines and part of the laminae of the fifth, then of the fourth, and finally of the third dorsal vertebrae; a small oval myxoma about 2.5 cm. in the long diameter was then seen, lying on the right side of the cord which it deeply indented, it was shelled out without difficulty; the operation was performed antiseptically, and the wound healed rapidly except where a drain had been left in; cerebro-spinal fluid continued to flow away for some time and for about four weeks the patient's condition did not appear to be much improved. Improvement then slowly began and when exhibited to the society, seven and a half months after the operation; he had regained almost completely both motion and sensation. The movements in fact could only be described as a little stiff; the cicatrix was strong and the laminae had approached each other so that no external pad over the wound was used.

At the same meeting of the same society, Mr. Walsham read an interesting paper on the treatment of rupture of the bladder; the statistics given (also tabulated by Sir William Mac Cormac in *Abdominal Section, etc.*) were strongly in favor of immediate abdominal section, closure of the bladder wound by Lembert's suture, and washing out of the peritonæum. Mr. Walsham reported a case thus treated, twelve hours after the injury, in a man of 22 years, who made a good recovery; the most important practical point brought out by the discussion was the advisability of ascertaining that bladders were watertight, before closing the abdominal wound; this Mr. Walsham tested by forcibly injecting eight ounces of warm solution of boric acid, and Mr. Butlin, a colleague of Mr. Walsham at St. Bartholomew's Hospital, added that one case had been examined after death at that hospital in which a small orifice had been found in the sutured bladder; such an occurrence as he observed was calculated to make every surgeon who witnessed it resolve never to omit injection of the bladder after suture. Mr. Timothy Holmes, who claimed to have been the first to suggest treatment of ruptured bladder by laparotomy, expressed the

opinion that surgeons would come to regard the cases as comparatively easy, so great a revolution having taken place in abdominal surgery since the time when he could remember that Mr. Caesar Hawkins, after making a correct diagnosis, had to be content to stand by and watch his patient die unrelieved, with peritonitis.

It would seem that antipyrine is being very extensively prescribed here for painful conditions of all kinds, but especially for migraine in which it sometimes acts most satisfactorily; patients who under all other drugs have been liable to two or three attacks in a month have been able, by taking antipyrin in repeated doses so soon as the first indications of the coming nerve storm were perceived, to keep the enemy at bay for five or six months at a time. It seems, however, to be very capricious; after acting very satisfactorily on three or four occasions, it may completely fail when again resorted to; moreover toxic symptoms may be produced by a very small dose. Bernouilli, of Basle, has recorded the case of a woman aged 52, who took antipyrine for chronic rheumatic arthritis, the daily dose amounting to 2.5 to 4.0 grammes. These doses were well borne, but on three subsequent occasions a dose of 1 gramme was followed in three or four minutes by pain in the chest and abdomen, mental anxiety, cold perspiration, rise in temperature and pulse, vomiting, swelling and redness of the face and a general erythematous rash. Laache and Fraenkel have reported similar cases, but I cannot now ascertain the dose given in these. Guttman has on two occasions witnessed facial cyanosis, rise in temperature and pulse, dyspnoea and a sensation of extreme heat after a dose of one gramme; in one of these cases there was œdema of arms and legs. Dr. Barber, of Brooklyn, (*Med. Record*), has described universal pruritus followed by urticaria after the same dose in a male adult. Dr. R. R. Ball (*ib.*) collapse, cardiac palpitation and nausea followed in a few minutes by itching and burning first of the fauces and nasopharynx and then of the skin, followed by urticaria, after a dose of ten grains in a young lady. Dr. Whitehouse,

abdominal pain followed by wide-spread urticaria in a child after seven and a half grains; and Dr. Allen Sturge, of Nice, coryza, profuse bronchorrhœa with orthopnœa and a feeling of suffocation, diaphoresis, wide-spread urticaria, rapid pulse, metallic taste and smell and tinnitus after a dose of five grains, in a lady. It would, I believe, be easy to add to this list, but from these few cases it is not difficult to construct a picture of the poisonous effects of antipyrin calculated to instil caution; though I have been unable to discover any record of a fatal result, the symptoms mentioned make a most alarming combination. Dr. Sturge's case is particularly valuable for several reasons: in the first place, he is a very competent observer, and owing to the fact that his patient was a member of his own family, he witnessed the very earliest symptoms; and in the second, the dose was the smallest which has been yet reported to have produced unpleasant symptoms.

The controversy as to the relation of scarlet fever and vaccinia to certain diseases, or a certain disease, of the udder in cows, is not yet settled. Professor Crookshank has read another paper on the subject and exhibited another boy who has contracted a vesicular malady, having depressed scars, from cows on the farm in Wiltshire, which were suffering from the disease which he believes to be vaccinia. Dr. Klein denies that the Wiltshire cow disease is the same as the Hendon cow disease which he considers to be the cause of human scarlet fever; he also disputes Professor Crookshank's theory that the Wiltshire cow-disease is vaccinia, and in support of this dubitant attitude he showed to the Pathological Society the calf which Professor Crookshank had shown to the same society a month earlier, presenting an eruption after inoculation, from a calf inoculated from a vesicle on the hand of one of the cow-boys; this calf was vaccinated with calf-lymph at the National Vaccine Establishment in London, and took; Dr. Klein therefore argued that the eruption produced by Professor Crookshank's inoculation at the second move from the cow-boy would not have been vaccinia, and that therefore the cow-boy was not suffering

from true vaccinia. Professor Crookshank in reply urged that this calf had been inoculated with lymph taken from a vesicle at too late a stage, after suppuration had commenced, and that it had been shown that lymph taken from the vesicle of typical vaccinia at that stage did not confer immunity. He also urged that the two calves which took when inoculated from the cow-boy direct, had both resisted vaccination.

Whether it be due to the innate depravity of human nature, or to the perhaps misguided aspirations of man after a happier state, the fact remains beyond dispute that every race on emerging from savagery acquires a taste for a stimulant of some kind. Many of the earlier travellers were a good deal puzzled to account for the habit of betel-chewing, so prevalent throughout the East. It is now well known that the betel nut acts as a mild stimulant. Dr. Guppy, who visited the Solomon Island, in a surveying ship belonging to the Royal Navy, compares the effect of chewing a single betel nut to that produced by a glass of sherry. In order to obtain the full effect, he, on one occasion, while on an exploring expedition, chewed and swallowed a whole nut; in a short time he felt drowsy, he had an inclination to lie down and vision was dimmed, these effects passed off in twenty minutes. On another occasion, he made more accurate observations. (1.) He chewed, but didn't swallow, one nut; in five minutes the pulse had increased in force, and in frequency from 62 to 92; he experienced a sensation of fulness in the head and temples, but no disturbance of vision; the pulse-rate began to decline in five minutes and reached the normal in half an hour. (2.) He then chewed two nuts, the first increased the pulse rate by 20, and produced restlessness and a sensation of fulness in the head, the second was then chewed, it sustained, but did not increase the frequency of the pulse. He had some difficulty in completing the experiment owing to nausea, no effect on locomotion was noticed, but sight was dimmed; this experiment was performed just before turning in for the night; and Dr. Guppy dreamt vivid dreams with a rapid shifting of

the *dramatis personæ*. The natives chew betel with a little piper betel, the female spike, (so-called fruit) or the leaves, being used, the betel pepper gives a pungency to the mouthful; but the object of adding lime is not quite clear, unless it be to correct the acidity of the betel juice in the same way as we drink Apollinaris with Champagne. From these observations it would seem that the betel nut contains an active principle which might be of use in therapeutics.

In the same work, which contains the above facts, (*The Solomon Islands and their Natives*), Dr. Guppy gives an interesting account of Tokelau ringworm, an inveterate form of body ringworm, which prevails extensively throughout the Pacific Islands. The disease is very conspicuous as it affects large tracts of skin, which it leaves partially discolored so that it is not likely to have escaped the observation of the earliest navigators if it had prevailed extensively in their time; yet the earliest Spanish adventurers, Gallego and Quitos, in their accounts of the Solomon, Santa Cruz, and New Hebrides groups contains no reference to the existence of such a disease. The home of the disease is, in Dr. Guppy's opinion, New Guinea and the Malay Archipelago, from whence it has spread eastward towards the centre of the Pacific within the period of three centuries which has elapsed since. Gallego wrote: He makes somewhat unexpected use of this pathological induction, by using it as an argument to fortify the theory that the Pacific Islands have only been occupied by the Eastern Polynesians within recent times. Special pathological interest attaches to Tokelau ringworm, because it has been considered by the late Dr. Tillery Fox, to be ordinary tinea circinata, modified by the influence of the warm moist climate of these tropical islands. If this theory be correct the differences thus produced by climate conditions are so enormously great as to be without a parallel. Dr. Manson, of Amoy, asserts that the parasite in Tokelau ringworm is not identical with that found in tinea circinata and that inoculation with the Tokelau fungus invariably produces this particular

type of the disease; and never tinea circinata. On the other hand, it must be remembered that tinea marginata, (formerly called eczema marginatum), may represent an intermediate condition. It is worth nothing that Dr. Guppy found the ordinary pararsiticide effectual and that sulphur ointment is extensively used with success on the labor ships.

The treatment of intestinal obstruction, caused by the impaction of a gallstone in the small gut, was recently discussed at the Clinical Society; the main question was whether early laparotomy was desirable, and upon this opinions were a good deal divided. Dr. W. M. Ord was rather in favor of waiting, and giving opium to relieve spasm, as in some cases the obstruction was spontaneously relieved by the passage of the calculus. Dr. Clutton related the case of a woman aged seventy, known to be the subject of biliary calculi; laparotomy was performed twenty-four hours after symptoms of obstruction had set in, the stone, as was hoped might be the case, was found close to the ileocæcal valve and was with some difficulty pushed through the valve into the colon. The calculus was passed *per anum* five days later; the patient perfectly recovered. It was objected to early laparotomy, that it might often happen that the stone would, at an early date, not have reached the end of the ileocæcal valve, but Mr. Knowsley Thornton thought that this might be met by a modification in the operation, the stone might be pushed on into a healthy part of the intestine; and then, as gall stones were very friable, either crushed with padded forceps, as Mr. Lawson Tait had suggested, or split up with fine needles passed into them through the intestinal walls, very little risk, according to Mr. Thornton, attached to such a puncture of the intestine, and the fragments might be pushed on through the ileocæcal valve.

Mr. George Godwin, F.R.S., who died at the age of seventy-three on Jan. 27th, was a remarkable man. He was an architect of some eminence, but the literary faculty predominated in him and he was the master of a trenchant style,

which was used to awaken the public mind to some of the evils arising from bad building, bad plans and bad drains. He was, in fact, a sanitary pioneer, whose services in the early days were greater than has been generally recognized. In 1854 he published a work entitled "London Shadows," which drew a sad picture of the houses of the London poor of that day; ten years later, in "Another Blow for Life," he returned to the same subject and showed how our sanitary and social defects threatened life, depreciated health, diminished happiness and degraded manners and morals. For nearly forty years he was editor of *The Builder*, a weekly newspaper devoted to subjects connected with architecture and building. Under his able guidance this journal reached a pitch of extraordinary excellence. He took great interest in all questions connected with hygiene; he was a member of the commission which organized the International Health Exhibition in London; he was a member of the Royal Commission on the housing of the working classes (1884) and one of the founders of the Parkes Museum of Hygiene. He had a curious hobby, the collection of chairs which had belonged to famous people. He once introduced me to his treasures, which nearly filled a large room at the back of his house at Cromwell Place; among them was a chair believed to have been the property of Shakespeare; it was preserved from the intrusion of the vulgar body by a little chain drawn across the arms. Of the others I can now only recall chairs belonging to Thackeray and to Dickens.

The new Laryngological Society, the formation of which was suggested by Dr. W. McNeill Whistler in his address as president of the Laryngological Sub-section at the meeting of the British Medical Association in Dublin last August, seems likely to make a good beginning; about fifty laryngologists have already joined. If meetings are not held too often, and if the first executive is strong, these specialist societies are very useful. It is seldom possible to get up a discussion on a special subject at one of the ordinary societies, yet free discussion is extremely useful to specialists and to

specialties in many ways; not least, perhaps, in helping to weed out members whose pretensions to special knowledge are not well founded.

Mr. C. C. Wheelhouse, of Leeds, who has given a great deal of attention to thoracic surgery, has published in a post graduate lecture some interesting practical observations on the best way of operating. In empyema, he prefers to tap or incise through the eighth space; he drops a perpendicular line from the angle of the scapula, when the elbow is at the side, and takes the interspace about one inch below the angle; if on introducing the finger into the pleural cavity he finds that the floor of the pleural cavity can be better reached from the next space below, he does not hesitate to make a second incision, the first being allowed to heal (rapidly under antiseptics). In dealing with empyema "operate early, operate freely," is his motto, and he entirely condemns aspiration except to verify the diagnosis of pus. Mr. Wheelhouse has twice aspirated the pericardium, and both times with success; this is his rule: after carefully mapping out the area of cardiac dulness and ascertaining the point of the apex-beat, insert the trocar on the upper surface of the fourth rib to the left of the sternum, advance it steadily upwards and from right to left until the impulse of the heart is felt, then withdraw the trocar and draw off sufficient fluid to relieve the embarrassment of the heart. Mr. Wheelhouse related a case of mediastinal abscess which he had succeeded in tapping by thrusting an aspirating needle upwards for nearly its whole length from the epigastrium; aspiration had to be repeated and, later, a drainage tube was introduced along its track; and the patient finally made a complete recovery. As to abscess of the lung, he recommended incision, cleansing and clearing of such as are of traumatic origin, such as are the immediate result of acute inflammatory processes and in which the patient's health has been good up to the onset of the acute illness; he quoted a very striking case under the care of Dr. Strange of Worcester, where the abscess was almost certainly due to the stump of a tooth which had been allowed to get

into the larynx while the patient, a robust young woman, was under chloroform. The physical signs were limited to the centre of the right lung (from spine to nipple); cough was paroxysmal and the expectoration copious and very offensive. Dr. Strange pushed the needle of an aspirator quite home into the chest, just below the ninth rib, and an inch behind the axillary line; a drop of pus appeared, the needle was withdrawn, and a large curved trocar, nine inches long, was thrust in its track upwards and forwards towards the fifth space in front; at a depth of eight inches stinking pus began to flow, a drainage tube was pushed through the cannula and the latter withdrawn; the wound was dressed with carbolic toul; no air or pus escaped into the pleura. The cavity was syringed out twice a day for some time. When the operation was performed it was doubted whether she could live another day; fifty-five days later she was discharged "cured." The word is often abused when we credit ourselves with curing patients who have recovered, but here was a patient literally cured, for the *vis medicatrix naturæ* had entirely failed. Mr. Wheelhouse advised that if possible no anæsthetic should be given, but that where necessary ether was the best; ether, however, is not without danger in chest operations. There is a simple way of producing a sufficient degree of local anæsthesia that used to be followed at the Brompton Consumption Hospital; a small cube of ice is tightly fixed on the skin where the incision is to be; after ten minutes the knife is hardly felt.

Professor Sydney Ringer in an address recently delivered before the Midland Medical Society, entered once more upon the question of the antagonisms of drugs which he said had acquired fresh importance since the (alleged) discovery that many of the diseases which we are called upon to treat are caused by alkaloids, leucomaines or ptomaines, engendered in the animal body. He instanced the antagonism of the chlorides of calcium and potassium; and showed that by careful apportionment of the proportion of the two salts contained in the circulating fluid supplied to the detached

ventricle of the frog's heart, it would continue to beat as though no heart-poison were circulating through it, though if either salt were alone in the circulating fluid, the toxic effect on the heart would be very conspicuous; he also showed that a similar antagonism existed between veratria and potassium chloride. It may be gathered from the address that Professor Ringer thinks that we may neutralize (or suppress) the action of a drug on the heart and presumably on other organs and tissues in at least four ways, only one of which, it seems to me, can be fairly called antagonism: (1) By supplying a drug having an opposite physiological action on the tissue or organ in a dose, to be ascertained by experiment, just sufficiently strong to neutralize the physiological action of the poisoning drug. (2) By supplying a drug having a comparatively harmless effect on the organ or tissue, but possessing a greater affinity, (?) chemical, for the organ or tissue. (3) By supplying a drug for which the poison has a strong chemical affinity. (4) By dilution, in the case of poisons which only produce toxic effects on function when present in a more than a certain percentage. As an example of (2) he gave the barium and calcium salts; both produce an effect of the same kind on the heart (placed under conditions above mentioned), but barium produces the greater effect; if after the barium salt has produced its effect, the calcium salt be added, instead of obtaining the sum of the action of the two salts, the effect produced by the barium is diminished until the degree, which would have been produced by the calcium salt alone, is reached. As an example of (3) he gave the soluble oxalates, which he said produced their poisonous effects, in part, at least, by rendering insoluble and thus withdrawing the lime from the circulation; soluble oxalate also has a poisonous action on the cardiac muscle. Both actions are neutralized by supplying lime which combines with the oxalic acid to form an insoluble and therefore inoperative salt. As an example of (4) he instanced the effects of bleeding in certain cases of poisoning and in uræmia; the loss of blood induces rapid absorption of the intercellular fluid. The strong

point in Professor Ringer's method is that his explanations are purely physical; its weakest point that his experiments are conducted under conditions of what may be called ideally perfect excretion, and are therefore not very easily applicable to the intact organism.

Sir Andrew Clark recently told the medical society how he treats the chlorosis of young girls; as for its etiology it is for him the absorption of poisonous bodies from the retained fæces. The theory is not completely satisfactory, but the treatment founded on it, (or out of which it has grown since), is so far satisfactory that it cures nine cases out of ten.

These are his prescriptions: "On first waking in the morning, sip a quarter of a pint of cold water. On rising, a tepid sponge-bath followed by a brisk towelling. Clothe warmly and loosely. Diet, four simple, but liberal, meals daily. Breakfast, eight to nine—whole-meal bread and butter, with one or two eggs or some broiled fresh fish, or the wing of a cold chicken or pheasant, and towards the close of the meal half a pint of equal parts of milk and tea, not infused longer than five minutes. Lunch or dinner, one to two—fresh, tenderly-dressed meat, bread, potato, well-boiled green vegetable, and any sort of simple farinaceous pudding or of cooked fruit, preferably apple; drink one glass of Burgundy alone or in half a tumblerful of water. Tea from four to five—whole-meal bread and butter, with a cup of equal parts of tea and milk. Dinner or supper, from seven to eight—resembles the mid-day meal, but is less in quantity. Nothing to be taken after this meal, nothing between meals, and nothing but what is here set down. Walk at least half an hour twice daily, and as much more as strength and convenience will permit. Retire to bed about ten, and repeat the sponging and towelling. See that your bedroom is cool and well ventilated. Lead a simple, regular, active, occupied, purposive life; and do not notice or distrust yourself."

The drugs treatment consists of the following old-fashioned ferruginous cathartic, to be taken twice a day, about eleven and six. Usually it is an acid

mixture, designed somewhat as follows:

R Ferri sulphatis.....gr. xxiv
Magnes. sulph.....3 vi
Acid. sulph. arom.....f3 i
Tinct. zingiberis.....f3 ii
Infus. gent. co. vel. quassie...f3 viii
Fiat. mist.

Sig.—One-sixth part twice daily, about eleven and six.

Occasionally this acid mixture produces sickness, dries the skin, and is otherwise illy borne. In such cases he prescribes an alkaline cathartic mixture:

R Ferri sulphat.....gr. xxiv
Sodii bicarbonat.....3 i
Sodii sulphat.....3 vii
Tinct. zingiberis.....f3 ii
Spts. chloroform.....f3 i
Inf. quassie... ..f3 viii
Fiat. mist.

Sig.—One-sixth part twice daily, about eleven and six.

If neither mixture agrees he prescribes sulphate of iron in pills with meals, and a saline aperient on first waking in the morning. When the health is quite restored, which is generally in two or three months, he orders a pill of aloes, myrrh and iron to be taken once or twice a week in a dose just large enough to bring about a moderate natural action of the bowels.

Several cases have recently been mentioned in which the long continued application of a solution of nitrate of silver to the throat was followed by a marked irritation of the skin; the possibility of such an untoward occurrence is not, I think, generally recognized; it is probably due to absorption from the stomach, into which, as Dr. George Duffey has observed, much of the salt must have passed.

Dr. Whitla, of Belfast, has devised a method of timing a murmur at the apex: a fine, silver-wire probe pointed and bent something like a uterine probe, is attached to a small saucer-shaped disc of metal by a thumb-screw joint; the disc, which is coated on the under surface with lead plaster, is made to adhere to the chest over the point of maximum impulse; the probe point is then bent down until it just taps lightly on the chest piece of the stethoscope applied near the apex beat. Each tap on the stethoscope is clearly heard and

marks beyond fear of confusion the period of systole.

The announcement made by Professor John Clay of Queens College, Birmingham, seven years ago, that Chian turpentine was capable not only of averting the growth of epithelioma uteri, but even of causing the disease entirely to disappear, excited a great deal of interest and inquiry. In other hands the drug has not produced the beneficial effects recorded by Professor Clay, and the general impression left by the various papers then published, was that there must have been an error of diagnosis. Professor Clay, however, has not been daunted, and has since, from time to time, published other cases. Quite recently he has put on record four more cases, in three of which the diagnosis of epithelioma had been made by other surgeons. In one case, Mr. Jonathan Hutchinson diagnosticated epithelioma of the tongue in a gentleman aged 48, and advised excision. Mr. Clay ordered a mixture containing Chian turpentine with resorcin; also to take chrysophanic acid, gr. 1-12 in pill every other night, and to have the growth painted with a solution of chromic acid every other day; a solution of perchloride of mercury, 1 in 2000 was used as an antiseptic gargle. Treatment was commenced in May, 1886; the growth began steadily to decrease in size, and instead of a fungating growth of the floor of the mouth involving the gum and the edge of the tongue for $1\frac{1}{4}$ in. with dense infiltration around, there was after fifteen months of treatment only an ulcer "the size of a three-penny bit." Another case was an example of epithelioma of the uterus and vagina in a woman aged 55; the diagnosis, it is stated, was made by Mr. Knowsley Thornton and confirmed by Prof. Clay who gave Chian turpentine with resorcin in increasing doses, painted the growth twice or thrice a week with a solution of chromic acid and directed the vagina to be syringed with vinegar and water, equal parts, twice a day; complete recovery ensued in six months. In a third case, the diagnosis of epithelioma of the uterus was also made by Mr. Knowsley Thornton, who

excised part of the growth; the excised portion on microscopical examination "was undoubtedly malignant;" the growth returned in six months and involved the body of the uterus; he took Chian turpentine and "the compound sulphur pills" for about a year; the symptoms gradually disappeared; this patient was under care of Dr. Hamilton, a pupil apparently of Prof. Clay, who never himself saw the patient. If such stories were told by the advertiser of a secret remedy, one would know how to disbelieve them, but when related by a well-known and respected professor of midwifery who publishes every detail of his method, scepticism must not be carried so far as to forbid full enquiry. DAWSON WILLIAMS.

[The unusual length of this communication is due to the fact, that part of it belonged to the last London Letter, but arrived too late to be inserted in its proper place, and was too valuable to leave out entirely.—Eds. P. M. T.]

CINCINNATI LETTER.

The Cincinnati Obstetrical Society met at the residence of the President, Dr. E. G. Zinke, on the evening of January 12th, when a paper was read by Dr. E. S. McKee, entitled "The External means in the Diagnosis of Pregnancy." The reader dwelt on the importance of this subject, the great possibilities of the *tactus eruditus*; he recommended the restriction of internal examinations to as few as possible and the giving of greater importance to the external means of diagnosis. The paper was discussed by Drs. Palmer, Mitchell, Zinke, Wenning, Illoway and E. W. Mitchell. It being the annual meeting, the following officers were elected: President, Dr. G. S. Mitchell; Vice-President, Dr. J. G. Hyndman; Recording Secretary, Dr. W. H. Wenning; Corresponding Secretary, Dr. T. P. White; Treasurer, Dr. G. E. Jones. Dr. G. Apostoli, of Paris, France, was elected Corresponding Member. The retiring President, Dr. Zinke, gave a reception after the meeting had adjourned.

The Miami College has 90 students, and expects about one-third to present

themselves for graduation. The bacteriological laboratory which has been under the care of Drs. Marsh and Allen, has been doing good work. Dr. Allen has been investigating a somewhat neglected field, microscopical gynecology.

The laboratories will be open at the Miami College during the Spring, but no Spring course of didactic lectures will be given. This College in company with others lost the plates from which the diplomas were made, in the Strobridge Lithographing Company's fire.

The Medical College of Ohio, has 224 students this year. The number of candidates is not yet known, but will probably range between 60 and 70.

An orthopaedic department, under the care of Dr. Geo. W. Ryan, a follower of Sayre, has been established.

The bacteriological laboratory under Drs. B. K. Ratchford and O. C. Cameron, is a thing of the present time, and has already rendered valuable service with reference to the typhoid bacillus, in the Ohio River water.

The city is unusually free from contagious diseases, and the typhoid fever has almost disappeared.

The Cincinnati College of Pharmacy has removed into its new building, on Court Street, which it purchased at a cost of \$12,000. Extensive improvements were made at a cost of \$8,000. The two laboratories, chemical, under Dr. J. F. Judge, and pharmaceutical, under Karl Langenbeck, are remarkably well equipped.

J. U. Lloyd, who has filled the chair of Pharmacy has resigned, and Prof. C. Fennel has succeeded him. J. F. James, of Miami University, lectures on Botany; C. H. Harvey, on Materia Medica; J. F. Judge, Chemistry; J. H. Feemster, Microscopy. There are in attendance, over 100 students, of whom 32 are seniors. The College of Pharmacy, is now the Department of Pharmacy, University of Cincinnati. It has been determined to conduct two full courses per annum. The second of these, the Spring course will begin March 8th, and continue 20 weeks. The course will be the same as the Winter course, with the additional advantage of a practical course in field botany. This course has been devised with especial reference to

the accommodation of students from the South, who can better leave their homes during the spring and summer, than in the fall and winter.

The Women's College, of Cincinnati, will open March 1st, for its second annual session. The prospects are that there will be a class of 12 or 15. The faculty remains without change.

The Cincinnati College of Medicine and Surgery, has a class of 50 this term, and will have 22 graduates. The faculty remains the same. E. S. M'K.

ABSTRACTS AND GLEANINGS.

RETAINED SECUNDINES AFTER MISCARRIAGE.—Doleris, who is a partisan of active intervention in retained placenta, recommends curetting and the use of a round brush, like a bottle washer, to clear out all fragments from the interior of the uterus.—*Auvard Amer. Jour. Obst. Vol. xx. p. 726.*

CAUSES OF CARDIAC FAILURE IN VALVULAR DISEASE.—1. Muscular overwork. This is an obvious instance of the load rising perilously near the driving power of the muscle that has to move it to maintain the circulation.

2. Second in frequency and in importance is nervous depression. Grief, anxiety, distress, fear and hope deferred are the most serious; but even pleasing excitement may be disastrous.

3. Imperfection of the blood-supply to the heart: from poverty of the blood itself; from blood which is over-rich and laden with the products of disordered digestion, deranged liver-action and imperfect assimilation; from rest and nutrition pushed too far as means of treatment; from a sudden change to sedentary habits; or, finally, from disease of the coronary arteries.

4. Intercurrent disease: rheumatism, pulmonary inflammations, etc.

5. Causes peculiar to women: pregnancy, parturition, lactation and change of life.

6. Cardiac poisons: tea, coffee, tobacco and alcohol.

7. Increase of the valvular lesion.

8. Reaching the limit of compensation.

Several of these causes may be combined.—BRUCE, in *The Practitioner*.

STATISTICS OF INFANTS' WEIGHT.—An Australian statistician informs us that the average weight of infants born in that island exceeds the average of civilized countries. This highly satisfactory conclusion is reached by the simple method of excluding all the very small specimens as "premature." The statistics are based upon the weights of five thousand of each sex; but do not state how the Australienns were induced to limit their efforts to that number, nor how they managed to equalize the sexes. Was the excess over the round numbers stated composed of the smallest or the largest babes? Anything more utterly valueless than such so-called "statistics" it is difficult to imagine.

STRYCHNINE IN INSOMNIA.—Lauder Brunton recommends strychnine in the insomnia of overworked literati. He gives $\frac{1}{300}$ to $\frac{3}{300}$ at bedtime, repeated if the patient awake within two hours.

HALLUCINATIONS FOLLOWING THE ADMINISTRATION OF SODIUM SALICYLATE.—Dr. Hiram Woods, at the February meeting of the Baltimore Chemical Society, read the notes of three cases of hallucinations, due to the administration of sodium salicylate. In each the reasoning faculties, and other special senses than vision, were unaffected, except that occasionally, there was tinnitus aurium. The physiological manifestations ceased upon discontinuing the salt which had been given in doses of twenty to twenty-five grains, four times a day.

REVIEWS AND BOOK NOTICES.

The *Annals of Surgery*, the only English Journal published devoted exclusively to surgery, enters now upon its fourth year.

Drs. L. S. Pilcher of Brooklyn, N. Y., and C. B. Keetley of London, England, are the chief editors, assisted by most all the able surgeons of this country as well as Europe, which is sufficient guarantee of the literary merits. We bespeak for it the co-operation of the members of the profession, who are interested in progressive surgery.

J. H. Chambers & Co., St. Louis,

Mo., are the publishers and deserve great credit for undertaking to produce such an important journal as *Annals*, and for its artistic execution.

THE NEW YORK MEDICAL JOURNAL VISITING LIST AND COMPLETE POCKET ACCOUNT-BOOK. Prepared by Charles H. Shears, A.M., M.D.

This seems the most compendious and convenient account-book for the busy practitioner that could be imagined. Each page is arranged for the accounts of three patients for one month, thus obviating the necessity of the frequent writing of names, and facilitating making out bills. Arrangement is made for 375 accounts. It is indexed and contains the obstetric calendar, and some tables for convenient reference. The book can be opened at any time.

ON SOME OF THE SURGEONS OF THE LAST CENTURY,

This is the title of a reprint of an interesting address, delivered by Dr. John H. Packard, and at the last meeting of the Ontario Medical Association. He shows that many novelties in surgery of the present day were foreshadowed or described by the great surgical writers and teachers of two centuries ago.

THE INTERNATIONAL JOURNAL OF SURGERY AND ANTISEPTICS makes its debut as a handsome sixty-four page quarterly. It is edited by Professor Milton Josiah Roberts. Those members of the profession who have heretofore been prevented by the mean jealousy of medical editors from satisfying their thirst for information concerning Milton Josiah Roberts and his osteotome, will now have their wishes gratified. It is true, only nineteen out of the sixty-four pages of the present issue are occupied with this subject (not counting sixteen supplementary pages of tables), and the only portrait given of the talented editor is a very poor one; but we may hope that his characteristic modesty will not prevent the rectification of these defects in the subsequent issues. The well-filled advertising sheet reflects great credit upon the capable manager, Dr. Ferdinand King.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

NECROSIS OF THE COCCYX WITH MENTAL SYMPTOMS; CURED BY OPERATION.

Editors MEDICAL TIMES:

While practicing in Kansas a few years ago, I was called to see Mrs. C— age 42, mother of two children, the youngest being 18 years of age. Since the birth of the last child she had been a victim of deep seated pain in and about the sacro-coccygeal articulation and was constantly being annoyed by the escape of pus from rectum and vagina. Her medical attendant assured her it was nothing more than the so-called "whites," and some simple wash was ordered and continued for some time. Failing however in obtaining relief from pain and discharge, she sought the advice of another medical adviser, who upon examination, found what he thought to be a pelvic abscess, and at once laid it open and packed it from the bottom with the view, no doubt of bringing about healing by granulations. This also failed, she gradually grew morose, and her reason being apparently dethroned, she was taken to the Topeka Insane Asylum, where she remained several months undergoing treatment for some form of brain disease. At last she was sent home as incurable. In one of her fits of frenzy, I was asked by the husband to see her, upon making some inquiries as to the cause and nature of the insanity was told, it was pelvic abscess and that she had had twenty seven in all; which statement I very much doubted. I then asked to be allowed to make an examination, which was willingly granted, and to my surprise, I not only failed to find a pelvic abscess, but totally failed to find any trace of one. Turning my attention next to the rec-

tum, and passing my finger well into the cut, and by making firm pressure backward against the coccyx, found that I could throw the patient into spasms at will. Believing the coccyx to be the source of her mental and physical suffering, I so expressed myself to the husband, and at the same time urged upon him the importance of its early removal as affording the only chance of effecting a radical cure. He accepted my theory of the case, and requested that the operation should be done at once. I made ready without delay, and on cutting down upon the coccyx found it detached and imprisoned in a dense fibrous like sack. The bones were so reduced in size by necrosis that the largest was no larger than a kernel of corn, and the smallest the size of a pin-head. After sponging out the cavity, I found two sinuses, one leading directly into the rectum, the other passing around the cut into the vagina, thus explaining the source of this discharge. The operation was very simple and easy of execution, but painful and violent spasms of the rectum, vagina and bladder soon supervened, so that death itself would have been welcome. This condition of things continued for three days; and the pain and spasms gradually abated; at the expiration of six weeks from the date of the operation, the patient was well both physically and mentally, and she had assumed the duties and cares of her household. Should I ever be called upon to remove the coccyx again where it has been so long in a diseased condition, I should remove all the indurated tissue in the immediate proximity of the coccyx, for by so doing I think the patient would be exempt from the pain and spasms that are so apt to follow this operation.

Bay City, Mich.

Z. H. EVANS.

JUST PLAIN "DOCTOR."

Editors MEDICAL TIMES:

Dear Sirs:—I have been intending for some time to ask you to put my name down as a subscriber to the TIMES; please do so now. Be kind enough, however, to direct it to Dr., R., not Prof. R., as was your recent favor. I once had my hair cut by a

barber who had on his sign, the name, "Professor Chain, Haircutter." It was an exceedingly bad cut, and since that I dislike to be called Professor, lest it should indicate that I was a bad cutter.

[These surgeons, as a class, are very punctilious, not to say peculiar. In England, they object to being called "Doctor;" here "Professor" is not good enough. We are in a quandary. Illustrious, renowned, and erudite, might lead to invidious comparisons. If our readers cannot help us out, we shall have to be satisfied with plain doctor until we can hit upon some more distinctive and appropriate title to apply to our surgical friends for whom we entertain such high regard, and who compliment us by reading and, what is better, subscribing for the TIMES.—EDS.]

MISCELLANY.

MEDICAL JURISPRUDENCE SOCIETY.—President Chas. K. Mills, M. D., has announced the following committees for 1888.

Executive—T. Levering Jones, Esq., Chairman; Jas. H. Lloyd, M.D., S. Spencer Chapman, Esq., J. A. Kyner, Ph.D., and R. J. Williams, Esq.

On Ethics—Hon. Wm. N. Ashman, Chairman; Thos. Hollingsworth Andrews, M.D., and F. H. Perkins, Esq.

On Legislation—Geo. W. Biddle, Esq., Chairman; Henry Hazlehurst, Esq., Geo. Fales Baker, A.M., M.D., J. B. Chapin, M.D., and J. L. Ludlow, M.D.

The other officers are: 1. Vice President, John A. Clarke, Esq.; 2. Vice President, Henry Leffmann, M.D.; Secretary, Francis X. Dercum, M.D.; Treasurer, Paschal Coggins, Esq.; Recorder, G. Milton Bradfield, M.D.

Meetings second Tuesday of each month, at 13th and Locust Streets.

The Philadelphia Clinical Society held its annual meeting, January 27, 1888, and elected officers as follows: Dr. Mary E. Allen, President; Dr. Clara Marshall, First Vice-President; Dr. Marie B. Werner, Second Vice-President; Dr. L. Brewer Hall, Treasurer; Dr. Mary Willits, Recording Secretary; Dr. Mary Willits, Reporting Secretary; Dr. Emma Musson, Corresponding Secretary.

Philadelphia County Medical Society, at the stated meeting for election of officers for the ensuing year the following gentlemen were chosen: J. Solis-Cohen, President; W. W. Keen, First Vice-President; E. T. Bruen, Second Vice-President; S. Solis-Cohen, Secretary; A. C. W. Beecher, Assistant-Secretary; L. K. Baldwin, Treasurer.

Meetings are held in the Hall of the College of Physicians on the second and third Wednesdays of each month.

DR. G. MILTON BRADFIELD, Recorder of the Medical Jurisprudence Society, has removed to 336 South 17th Street.

CHANGES IN THE MEDICAL CORPS OF THE NAVY, FOR THE WEEK ENDING FEBRUARY 18, 1888.

ASSISTANT SURGEON, F. W. OLCOTT.—Detached from the "Minnesota" and to the "Atlanta."

SURGEON, T. C. HEYL.—Ordered to the Receiving Ship "St. Louis."

SURGEON, H. M. MARTIN.—Detached from "St. Louis" and to the "Swatara."

ASSISTANT SURGEON, CHAS. F. WEBSTER.—Ordered to the Receiving Ship "Vermont."

ASSISTANT SURGEON, JAMES G. FIELD.—Detached from the "Vermont" and to the "Swatara."

P. A. SURGEON, ROBERT WHITING.—Detached from the "Iroquois" and to the Coast Survey.

ASSISTANT SURGEON, CLONER C. TRACY.—Resigned to take effect immediately.

WEEK ENDING FEBRUARY 25, 1888.

No changes in the Medical Corps of the Navy for the week ending February 25, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 25, 1888.

L. WILLIAMS, PASSED ASSISTANT-SURGEON.—Promoted and appointed Passed Assistant-Surgeon from Feb. 10, 1888. Feb. 23, 1888.

O. COBB, ASSISTANT-SURGEON.—Appointed an Assistant-Surgeon. Feb. 21, 1888. Assigned duty at Marine Hospital, Chicago, Ill., Feb. 25, 1888.

J. B. STONER, ASSISTANT-SURGEON.—Appointed an Assistant-Surgeon, Feb. 21, 1888. Assigned to duty at Marine Hospital, New York, N. Y., Feb. 23, 1888.

A. W. CONDUCT, ASSISTANT-SURGEON.—Appointed an Assistant-Surgeon, Feb. 21, 1888. Assigned to duty at Marine Hospital, Chicago, Ill., Feb. 23, 1888.

WEEK ENDED FEBRUARY 18, 1888.

EUGENE WASDIN, PASSED ASSISTANT-SURGEON.—Relieved from duty at Marine Hospital, Chicago, ordered to Marine Hospital, Mobile, Ala., February 16, 1888.

SEATON NORMAN, ASSISTANT-SURGEON.—Relieved from duty at Marine Hospital, New York, to assume charge of the Service at Evansville, Ind., February 5, 1888.

PHILADELPHIA MEDICAL TIMES.

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CLINICAL LECTURE.

ON TYPHOID FEVER IN CHILDHOOD.

BY F. FORCHHEIMER, M. D.,

Professor of Physiology and Diseases of Children, Medical College of Ohio; Physician to the Cincinnati and Good Samaritan Hospitals, and Home for Sick Children.

[Delivered at the Cincinnati Hosp. Jan. 25, '88.]

GENTLEMEN: I shall point out to you to-day the peculiarities of typhoid fever as it appears in children. It is unnecessary to tell you that most diseases present differences in the way they affect children and adults. In this disease, as in most others, the younger the subject the greater the difference in its manifestations and course. If we study the disease in the child as it appears in the adult, we will often fail to recognize it as being at all the same.

The history of typhoid fever in children is quite recent. You will be astonished to hear that only so lately as 1872 and 1873, it was taught that typhoid fever does not exist in children and in infants. Do not infer that this was generally accepted by the profession; yet it was the teaching of the late Alonzo Clark, of New York, who said typhoid fever is not found in children and infants; it is only the disease mistaken for intermittent fever. The course

of the disease in these children was not thoroughly understood, yet long before this, post-mortem examinations had shown the presence of typhoid fever lesions in children and infants. This was the view in this country and among very excellent authorities abroad. Those who admitted that it did exist, considered it to be very rare and that it was generally taken to be something else.

In some epidemics children suffer to a great extent. There is no good explanation for this. The present epidemic in this city is one in which many children have been affected. There are at present, 30 cases in our hospital, of which 7 are typhoid fever. More than nine-tenths of all my cases of typhoid fever have been children; but of course my practice is largely among children. There are other epidemics in which the children are very rarely affected, yet it is quite possible that in some of these they are overlooked.

The house physician will now read the history of the case:

E—C—, aged 12, colored, of good physique, was admitted January 22, 1888. He had had measles but no other disease. He was taken sick January 15, with general malaise, pain in the abdomen and diarrhœa. This condition continuing, he came here. At present he has pain over the descending colon.

There has been no hemorrhage, vertigo or epistaxis. The temperature is 103.5° and the pulse 120. The bowels are loose, micturition normal, lips dry, tongue coated and offensive. Abdominal inspection showed it to be moderately distended, few rose spots, gurgling in the iliac fossa but no tenderness. Urine normal, specific gravity 1013, color reddish, acid reaction, some albumen, no sugar or bile. He was ordered first a bath in lukewarm water then given whiskey and dilute muriatic acid. January 23, pulse 120, and temperature 103, baths repeated.

You have heard the history of this boy. Note well that he was taken sick on a certain day, that the date is mentioned. This is probably all we will get out of the boy. In the majority of instances the disorder begins suddenly in children, which is one of the characteristics of the disease. When the adult with typhoid fever is first seen, the practitioner gets an indefinite history as to the commencement of the disease, probably the patient has been feeling badly for a week or ten days. If called to see a child we generally have this statement: the child was taken sick yesterday evening and was taken so suddenly and seriously ill, that the doctor was called during the first two and a half hours. The child may have been playing around in the morning, languid in the evening and the next morning be quite ill. This very rarely occurs in the adult.

The child complains of pain in the stomach. When asked to locate the pain, he will point indefinitely over the region of the epigastrium. Careful examination to localize the pain, does not find the abdomen sensitive at all. Any pain in the abdominal organs is referred to the epigastrium. Tenderness may not be found there, but on deep pressure it will be elicited in the iliac regions. It is only localized by careful examination and may require quite deep pressure. We can often only tell that there is pain by the child's crying or frowning. Another symptom in children is insomnia in the beginning. This may alternate with drowsiness which is very marked, the child may not sleep at all at night, and yet doze all day. As a rule the child is sleepless at night and somnolent during the day.

Epistaxis is common, but in a great many cases is absent. In this epidemic only five per cent. of my cases had epistaxis. Not one in the seventy cases under my observation had serious hemorrhage. This is the case as a rule, but in some epidemics, epistaxis is severe and characteristic. The nose is, as a rule, dry, yet not dry enough to cause sneezing, which is consequently absent in most cases. Liebermeister says: "As rule, if sneezing is present there is no typhoid fever." The exceptions to this rule are notably present in this epidemic, I have noticed it more than ever before.

Condition of the tongue is the same as in adults, large, coated, red borders with red line in the centre. We may find leptothrix and the remains of food coating the tongue. I have no explanation for this condition and would not be willing to make a diagnosis on the state of the tongue alone.

Cough due to bronchial catarrh, is present in nearly all cases.

A great many children and infants suffer with constipation. I am fully aware that in making this statement, I differ from many authors. Diarrhœa occurs, as the rule, during the course of the disease, but it is generally not very severe, with the peculiar pea-soup stools with more or less pain before the passages, sometimes after. Constipation, however, is the rule in children, and not diarrhœa. Enlargement of the spleen occurs in a majority of cases, though it is not so important in the diagnosis as in adults. There are well authenticated cases where the spleen is examined post-mortem and found changed in structure though not in size. Hensch reports quite a number where the spleen was normal. This has also been my experience.

Vomiting is present in the inception in a great majority of cases very frequently, and we are sometimes at a loss to tell what we are dealing with on this account.

The changes in the intestinal tract are by no means so severe as in the adult and are altogether different. The changes in Peyer's patches are not so severe, intense, deep; not so extensive, more localized; the lesions do not, as a rule, extend into the large intestine.

The child consequently suffers little with hemorrhage from the bowels. Only one out of my seventy cases had hemorrhage, and not one case of perforation occurred.

The great characteristic in children, is that typhoid fever produces deep and profound impressions on the nervous system. We have somnolence, wakefulness, headache, also changing of the disposition of the child. Those who were studious and agreeable before, are completely changed. After recovery, they remain nervous, fidgety and shy, while sometimes the unstudious child becomes the reverse after the disease. This unbalancing of the nervous system lasts a number of years in some instances.

The pulse, as a rule, bears no relation to the height of the temperature. With a temperature of 104.5° , the pulse often is not more frequent than with a temperature of 102° . This is one reason why the disease is not more frequently fatal in children. The heart is not so severely affected.

Complications are not so frequent in children. The proportion was very small in this epidemic. One complication which occurred in this epidemic was, when the fever was breaking up, or had broken up, the child was all of a sudden attacked with aphasia. We have no explanation of the aphasia of typhoid fever. Post-mortem examination shows no change. It is probably there but it is not discovered. This aphasia lasts a week or ten days, and the child begins to talk again. One sequel of typhoid fever which occurs in children and not in adults, is tuberculosis. The case is protracted for six, eight, ten weeks or three months, and, finally, the child dies of tuberculosis of the intestines, acute milary tuberculosis or tubercular meningitis. The only cases of typhoid fever in children which have died, have been cases of this kind, in my experience.

The prognosis of this disease in children is extremely favorable. In seventy cases I have not lost one. The only exception to this general rule is the period of the newly born. During the first two months the mortality is very great, according to the statement of most authors, but I do not believe that it is correct. Up to the age of twelve years, the mortality is very good, hardly over five per cent. The best results which we

have had from this in adults is five per cent., but it is frequently higher than this. Usually in this hospital it is between six and seven per cent.

Treatment.—I believe in the possibility of aborting typhoid fever with calomel. I have done it. I believe, over six times in this epidemic, and think I have done it before, but I cannot prove it. If I get a case before the fifth or sixth day I always give a dose of calomel, and a large one, in some instances repeating it. I then follow this up with rather full doses of antipyrine, because it lessens pain, and seems to have an antiseptic effect. I consider it of very great importance to have two beds, one for the day and one for the night. I choose the best room in the house for the sick-room, having no hesitancy even in taking the parlor, first removing all the bric-a-brac. The room should be one well lighted and well ventilated, and near the water conveniences. The diet should be absolutely fluid. It is not so particular that it be albuminous, but absolutely fluid, no bread, no toast. I have seen hemorrhage caused by bread. The patient will often beg for something solid to eat. We can give them tolu to chew, as what they miss in the fluid food is the customary chewing. I frequently give

R	Acidi hydrochlorici, dil...	1.00
	Syrupi rubi idæi.....	15.00
	Aque.....	45.00

M. S.—Take one teaspoonful every hour or two.

I employ sustaining measures, including whiskey. In the antipyretic treatment we want to avoid everything which will cause a collapse. I never give cold baths to children, on account of collapse. I use the lukewarm bath or cold wrap, and prefer the former.

If the bodily heat reaches 103.5° in the axilla, it is the rule to give a bath, which will bring it down to 101° . An evening temperature of 103° , a bath will bring down to 99.5° . Evening temperature of 104° , bath will bring down to what I show you on the chart. You see this zigzag curve. You can say what stage of the disease the patient is in from the remission of the fever. Often we can say that the patient is in the third week. We cannot say for sure because of the age of the patient. The pulse, you see by reference to the chart, ranges 120

beats with a temperature of from 99° to 104.5° . If we feel the pulse we do not notice much difference in it. The whole course of the temperature in children is brought into less time than in adults. The four weeks are compressed into three. The first week we have ascent usually not very well marked. In the fourth week we have descent usually well marked. Frequently the continuous fever lasts longer than a week. This is not the rule, but it does occur. A great many have a temperature of 103.5° on the fifth day. This condition may last a week or ten days, or perhaps longer. The temperature in the third week may come down suddenly, or may come down gradually.

ORIGINAL COMMUNICATIONS.

ACUTE STRANGULATED RUPTURE.

BY W. EVERETTSMITH, A.B., M.D., HARV.,
of Boston, Mass.

THE pathology and treatment of *acute*, strangulated rupture, and by this I mean the strangulation of a rupture upon its first descent, differs very materially from that of a strangulation of a long-existing rupture, and demands essential modifications of the ordinary treatment. I shall describe, very briefly, only such variations as I have learned by experience to be of vital and practical importance.

The natural tendency of all ruptures to become inflamed and so fixed to the surrounding parts that their reduction is difficult, if not impossible, without the aid of a serious operation, is increased by causes that often seem too slight to be worthy of particular notice.

It may be that the patient is troubled with gaseous distention of the bowels,* or with constipation or diarrhœa; he may get over-tired some day, or may irritate the rupture by long-continued efforts to reduce it; on the other hand, the spring of his truss, if he wears one, may be too stiff, so that the pad inflames the groin, or the truss itself may not fit, or may not be perfectly adjusted. In any event, the bowels may become strangulated and speedily slough unless

* It is not uncommon in New England to see an innocent-looking rupture become suddenly strangulated after a hearty indulgence in our Saturday evening supper of baked beans.

immediate relief be given by a careful surgeon who has had experience in the matter.

In umbilical rupture a strangulation is a rare occurrence, and is almost always in the chronic form. In inguinal ruptures, although strangulation is not uncommon, the acute variety is rather rare. When acute symptoms do occur, they are in the congenital, rather than in the acquired forms of the disease. Femoral ruptures are the most likely of all to become strangulated, and it is in this variety that we see the largest number of acute strangulations. As a general rule, moreover, it may be said that a small protrusion is more easily strangulated, and more frequently upon its first descent, than is a large one, and an old one more often than a recent (or acute) one, although in the latter the symptoms are more urgent and more dangerous. In other words, the larger the rupture, the greater the inconvenience; but, the smaller the rupture, the greater the danger to life.

And this statement is as true clinically as it is pathologically. The protrusion of a small rupture is often unnoticed both by patient and physician. Consequently its first symptoms are neglected or hastily assumed to indicate only an ordinary attack of cholera morbus. They are to be distinguished, however, from the pains of cholera morbus by their severity, coupled with the rapidity with which they are followed by an extreme degree of nausea, vomiting, collapse, pain at the navel and constipation. This rapid sequence of symptoms is not, as a rule, characteristic of cholera morbus, but is, on the contrary, very prominent in strangulation of the bowel, especially in acute or recent forms.

At times, and particularly in ruptures of long standing, the only evident symptom is the pain at the navel.* Now,

* In the *London Lancet* of Jan. 14, 1888, are notes of a case of strangulated hernia, with entire absence of local pain, reported by Mr. O. B. Shelswell. There was severe abdominal pain, especially on the left side and around and above the umbilicus, with vomiting and constipation; yet the hard and irregularly-shaped protrusion in the groin was without pain. The rupture had existed for three weeks. Even taxis produced no pain. Such a history sometimes occurs in acute strangulations also.

although this pain is not peculiar to strangulated rupture, but may also occur whenever there is intestinal inflammation, it is a valuable guide-board; and whenever present, should not be treated slightly. It was absolutely the only symptom that once led me to diagnose an acute strangulation, even though the patient, as well as her attendant physician, did not have a suspicion of the existence of a rupture. As a rule, however, this pain in cases of acute strangulation is accompanied by a marked tenderness in the groin over the seat of the hernial protrusion; with such symptoms, there ought to be no doubt or delay in the diagnosis.

Yet I fear these warnings of nature are too often unheeded by physicians, especially if the patient gives no history of a rupture or does not suspect that he has one. In such cases it is not uncommon for the agonizing pain to disappear gradually while the collapse will still remain. This relief from active pain quiets for a time the anxieties both of physicians and of friends, but it is not a happy sign. It is unmistakable evidence of the extremest danger: the strangulated bowel has begun to mortify and slough.

For the very reason that, whenever the reduction of a rupture becomes a work of skilful art, the life of the sufferer is so seriously threatened that the delay of every moment adds danger, the case must be treated intelligently and considerately from the very beginning. Although constipation is apt to be an early symptom, a purgative is in no case admissible. Nor is the local application of ice so efficacious or advisable in recent as in old cases, where the symptoms are less acute and the nervous irritability less intense. There must be no kneading or unnecessary handling of the parts. If the case be an acute one, it is advisable not to attempt to reduce the protrusion until a sufficient relaxation of the parts has been produced by either a hot bath, a full dose of opium, or the inhalation of ether.

The proper position of the body during the taxis is a very important point, but is too often disregarded. The pelvis should be raised, the shoulders elevated, and the legs flexed and turned

inwards, in order to relieve as much as possible the natural tension of the muscles. A very useful manœuvre which has at times succeeded in producing the requisite amount of relaxation when all other positions have failed is to flex the thigh sharply toward the shoulder of the opposite side.

The hard and fast rule laid down in the text-books that taxis is never to be employed for more than two to five minutes, however, requires a certain modification. Unquestionably in acute strangulations, and especially when a femoral rupture is involved, any long-continued manipulation is extremely hazardous, and cannot be too strongly condemned. But in ruptures of long standing the parts have so lost their delicate sensitiveness that taxis can safely be continued for a much longer period than in cases of recent origin.

In those cases where taxis has succeeded in effecting a reduction of the strangulated protrusion, the vomiting will cease and the dragging pain be at once relieved. A pad should now be placed over the hernial rings until a truss can be applied and worn. When this precaution has been neglected, especially after acute strangulations, many a case has become re-strangulated with symptoms more distressing and far more alarming than at the original strangulation. Particularly also after acute strangulations, the patient should be kept quiet in bed for a few days, while the diet should be sustaining but not solid. Milk is an eligible form of nutriment. Alcoholic stimulants inflame the parts, are to be used with the extremest caution, even in cases of collapse, and had better in the majority of cases be dispensed with altogether.

In umbilical strangulations, two-thirds of the cases are readily reducible without any operative procedure. In strangulations of inguinal protrusions, the more chronic the rupture the more successful the taxis. Acute cases are not often thus reduced. In femoral strangulations, on the contrary, although the taxis is as a rule even less successful than in inguinal varieties, it sometimes succeeds in recent (acute) cases, but rarely in the chronic forms.

When taxis has been attempted and has failed, nothing but an immediate

operation is justifiable. Death stares in the face every moment of delay. The operation, although formidable, is not in itself dangerous. Far from being the last and long-delayed resort, as it often is, it ought in many cases to be one of the first expedients thought of. Especially is this true when hiccough is markedly present, or when in femoral varieties faecal vomiting has existed for some hours; when, in other words, there is evidence or suspicion that gangrene of the intestines is taking place.

The more acute the strangulation, the more likely is the surgeon to find a diffused necrosis or slough, even after the lapse of a very few hours. Hence, after the hernial sac has been exposed to view by herniotomy, the question arises whether it shall be opened or shall, together with its contents, be returned entire within the abdomen.

Whenever taxis has been applicable to the case, but has failed, the rupture may safely, and had better, be reduced without opening the sac, provided the operation had not been unduly delayed. When, on the contrary, taxis has not been admissible—that is, when the strangulation has been of considerable duration, the symptoms severe and faecal vomiting persistent—or when, by the sudden collapse of the tumor without its reduction, we are led to fear a perforation of the bowel, the sac should be laid open and the condition of its contents examined.

If the bowel be in a favorable, or even in a doubtful condition, it should be returned within the abdominal cavity without any officious handling. If, however, it is recognized as dead, all thought of reduction had better be abandoned, and the intestine left to pass into an artificial anus.

A strangulated omental rupture presents the same symptoms in a less acute degree as are seen in strangulations of intestinal ruptures, but admits of much freer manipulation. Where omentum is involved in acute strangulation, it can safely be returned within the abdominal cavity after the operation of herniotomy has been performed. When, in chronic cases, it is in large quantity or is suffering necrosis, it would be well to ligate it as near the end of the sac as possible and cut it off, taking care not

to disturb adhesions which may have formed. Simply to cut off the omentum and tie or twist the bleeding vessels is a highly dangerous proceeding. The omentum is very vascular, and its minute vessels bleed so freely that they have been known to cause a fatal hemorrhage. In femoral strangulations it is quite the rule to find sacs of omentum. They are never to be returned to the abdomen unopened.

THE INDUCTION OF PREMATURE LABOR IN THE ALBUMINURIA OF PREGNANCY, WITH EXTREME GENERAL DROPSY.*

BY F. O. DONOHUE, M.D.,
of Syracuse, N. Y.

THE original application of the operation for the induction of premature labor in the extreme anasarca accompanying pregnancy is somewhat obscure. We are told that Macauley, of London, performed it in 1756; we next hear of it in Germany in 1804.

It met with considerable opposition on the continent, especially in France. The objections were based mainly on moral and religious grounds, and even to-day certain classes are opposed to it for the same reasons. Notwithstanding all this, it has had the endorsement and sanction of some of the most eminent members of our profession.

There are no patients which give the physician more anxiety than those which in the seventh or eighth month of pregnancy present unmistakable evidences of nephritis with general dropsy. If it can be ascertained to a certainty that the fetus in utero is dead, then the way is clear; but on the other hand, if it be known that the fetus is alive, what course should then be pursued? Authorities, as well as our own experience, teach us that the risks to the mother from the operation are very small as compared with those which would be encountered in the event of puerperal convulsions supervening, or chronic Bright's disease becoming established. In the seventh or eighth month of utero-gestation the child is viable, and

* Read before the Third District Branch of the New York State Medical Association.

as the albuminuria places its life in hazard, it would seem that the operation is indicated, and is justifiable in the interests of both mother and child. We are not warranted in watching and waiting, and relying on medication to avert the anticipated convulsion, (which is pretty certain to supervene), and announce the sad tidings that the system can no longer tolerate the poison in the circulation; then to begin systematic bleeding and purging of the patient, to be followed, in the majority of cases, by fatal issue. I respectfully submit the following case, with its attendant circumstances, for your consideration.

On March 20, 1886, I was summoned to Mrs. Catherine M., aged 36, who was then advanced in the seventh month of her seventh pregnancy, she having previously given birth to six children at full term. On this occasion she presented a pitiable spectacle. Her lower limbs were enormously distended by dropsical effusion, as was also her body, especially the abdomen; her face and hands were also œdematous; an examination of the urine revealed the presence of a large quantity of albumen. Careful auscultation could not detect the sounds of the fetal heart; but in this I could not be positive, as the greatly distended abdomen precluded the hearing with any degree of certainty. I very candidly stated to my patient my opinion of her condition and the cause which produced it; that she need expect little or nothing from drugs to relieve the dropsy. In short, I told her the safest way out of her present dilemma was to submit to the induction of premature labor, by which the pressure would be removed from the already congested kidneys and the dropsy would in all probability disappear. To this she did not consent; but requested me to try the effect of medicines, which I did for several days, placing her under the regular treatment of salines, diuretics and hydragogues. The general anasarca, instead of diminishing, increased apace. I finally had the opinion of my very highly esteemed friend, Dr. Alfred Mercer, who, after carefully examining my patient, concurred in advising the induction of premature labor as the

only means of saving her life, and possibly that of her child.

Accordingly, on the first day of April, 1886, after receiving the consent of the patient and her husband, I proceeded to dilate the os, which was quite patulous, by digital manipulation, after having previously introduced the uterine sound, puncturing the membranes and allowing the liquor amnii to drain off. In the course of several hours uterine contractions supervened with considerable vigor, the head descended into the pelvic cavity; when the progress of the labor was impeded by the rigidity of the perinæum. The uterine contractions at this time, too, seemed to falter. Seeing that my patient's strength was failing, I came to her relief by applying the forceps, and soon delivered the child, which proved to be as dropsical as the mother. It had evidently been dead some time, as it was partially decomposed, the epidermis having peeled off to a considerable extent. After waiting about half an hour for the uterus to contract, with the practice of Credé's method—which I always employ in the delivery of the placenta—seeing that it was not likely to be expelled, an examination per vaginam was made, and the placenta was found to be firmly adherent to the uterine wall. I then inserted my hand into the uterine cavity, and found the adhesions so extensive that the administration of an anæsthetic was deemed necessary for its delivery. I placed my patient under the influence of ether, and introducing my hand high up in the cavity of the womb, I vainly sought a point from which to peel off the edge; but the adhesions were so firm, and the fusing of the placenta with the uterine wall was so perfect that every effort to detach it in its entirety proved futile.

I now resolved upon delivering it piecemeal, and proceeded to remove portions varying in size from a walnut to that of a small egg. After working assiduously for the greater part of an hour, I succeeded in removing the entire mass piece by piece, and made a careful examination of the entire uterine wall, to satisfy myself that no portion thereof remained.

I have repeatedly extracted retained placenta, but the amount of effort re-

quired in this case exceeded anything I ever encountered in the lying-in room before or since.

I have a record of seven hundred confinements attended by myself in private practice in the past ten years, including craniotomy, version, embryotomy and high forceps operations; but never have I met with a case which gave me so much trouble. Moreover, I had no assistance, save that of a very intelligent woman, who happened to be present. Many of you will ask, why did you not call in professional assistance? To this I make answer that none was needed until the delivery of the afterbirth, and then time was too precious to waste in sending for help, as in all probability my patient would have become exsanguinated before assistance could arrive.

After taking the ether from her, she went into a state of partial collapse, and became pulseless at the wrist. I had almost made up my mind that all was over so far as she was concerned. I began administering hypodermics of brandy, and soon had the satisfaction of seeing her rally. Her convalescence was slow; vaginal and intra-uterine injections of carbolized oil were used twice daily. The treatment otherwise consisted of tr. ferri chlor., with milk-diet. In about six weeks she was able to sit up. She is now practically as well as ever. She has not since become pregnant and I trust she never will.

In looking up the literature on the placenta and its diseases, I find considerable disagreement as to the cause of adhesions. Some eminent authorities—among whom are Simpson, Rokitan-sky, Scanzoni—suppose that inflammation of the placenta followed by exudation is the cause of the formation of connective tissue. Others equally as eminent—among whom are Braun, Schröder and Spiegelberg—regard this placental inflammation as not a true form of placentitis, but of chronic endometritis, affecting the mucous membranes of the uterus primarily and only extending to the foetal structures incidentally. Hegar and Maier describe it as a form of interstitial endometritis, in which the villi are agglutinated and compressed by the hyper-

trophic elements and the development of new connective tissue. Whichever be correct of these views as to the cause of placental adhesions, it is obvious that there were sufficient pathological changes present in the placenta in this case to cause intra-uterine death; and that the foetus having died, it became, with the secundines, a macerating mass in the uterus, imperiling the life of the mother and rendering its removal imperative.

I shall not further theorize on this subject; but I firmly believe that, had this woman been left to the natural full term period, without interference, she would have found an untimely grave, instead of living, and being now the centre of a happy family.

A CASE OF HERNIA OF THE BRAIN AND FUNGUS CEREBRI.

BY ELIAS LESTER, M. D.

Of Seneca Falls, N. Y.

The notes of the case are as follows: On April 24, 1886, Andrew Murphy, a laborer, was removing sections of pig-iron which were being sent down a chute at an angle of 50°, for a distance of forty or fifty feet. As he was stooping to pick up a piece, one weighing about fifty pounds hit him on the head, breaking in the left parietal bone, a little to the left and posterior to the apex of the cranium. He was an Irishman by birth, about forty-five years of age, of temperate habits, and in good health at the time of the injury. I found him insensible, some hemorrhage, and a cup-shaped depression in the plates of the skull about three inches long by two inches wide. I removed the depressed bones and found the blood was oozing into the cavity. He soon regained consciousness after the removal of the bones. The wound was dressed open, so that the blood could drain off. I applied cold water cloths. The next day he was unable to raise his right foot, except with considerable exertion, and the paralysis increased from day to day and extended to his right arm. He had retention of urine, required a powerful dose of physic to move his bowels, slept most of the time for the first week, suffered no pain and when aroused talked intelligently and was in good spirits.

The second week his right side was paralyzed so that it was immovable, even to the muscles of the face. During this time there was no inflammatory action, although there was some discharge of a thin watery character through a rupture of the dura mater at the bottom of the cup-shaped cavity. The third week his general symptoms were the same, but I had noted for some days at the bottom of the cavity, a growth, which looked like the exuberant granulations seen in gunshot wounds which are healing, coming up from this fissure in the dura mater. It grew a little each day, and gradually filled up the cavity of the skull, protruded, and in a few days was from half to three-quarters of an inch above the surface, and kept growing till it was as large as a small orange.

May 13th, I called counsel to determine what to do with this mass. We decided to ligature and cut it off. I passed a double thread through it and cut off half at a time. There was no pain; we used no anæsthetic, and there was little hemorrhage, which stopped very soon after the application of powdered persulphate of iron. The protrusion still grew, so that on the 18th, I again removed it down to the surface of the skull. During the fourth week, the paralysis extended to the throat, so he had difficulty in swallowing; he became more stupid, and wandered in his mind slightly. The fungus cerebri continued to grow, and I concluded not to interfere with it any more, it became as large as at the first operation, when he died on the 21st day of May, 1886. There was no post-mortem.

The question is, was this a hernia of the brain substance or a fungous growth, like granulations, growing from the brain through the wound of the dura mater? If it was brain substance, it should not have been excised, if a fungous growth then it was not bad treatment to cut it off. Gross says, this affection is sometimes ridiculously enough called hernia of the brain, that this growth is fungous; and that the tumor is not composed of cerebral matter to any extent, as has sometimes been supposed, is proved by the circumstance that after death the loss of brain does not at all correspond with the volume of morbid

growth and the repeated retrenchments to which it was subjected during life.

In the 1st surgical volume of the Medical and Surgical History of the War, page 295, a case is reported by McCall, Ass't. Surg. U. S. A., almost identical with this case. He calls it a fungus cerebri, or hernia of the brain. His treatment was the same as mine, even to the method of amputation. A post-mortem revealed an abscess in the left hemisphere, on the same side as the injury.

On page 207 of the same volume, a case is reported which recovered. The attending surgeon tried compression, according to the French method, but with such serious results, he says, that "I was startled for the safety of my patient," and therefore threw aside all treatment save simple cerate on soft lint. This case was reported by W. P. Moon, Ass't. Surg. U. S. A. In Holmes' Surgery, vol. 1, Dr. John A. Lidell, states "that in hernia cerebri,—such I mean as is described by English surgeons—the protruded substance appears to have varied somewhat in its nature; but, whatever may have been the actual appearance of the tumor itself, the dura mater was, at any rate, torn through, and the protruded substance was more or less intimately connected with the brain. In some cases the protrusion is described as having been chiefly composed of blood extravasated under the pia mater, between it and the surface of the brain, or in its most superficial parts; in other cases the appearance of the protruded mass was that of true brain substance, looking exactly like the structure of the brain with which it was continuous; and in other cases again, the tumor is represented as an over-abundant granulation from the brain, the injury of which it was destined to repair. Indeed, some surgeons believe that this is the only form in which hernia cerebri shows itself: not then a protrusion of brain matter; not a hernia cerebri; but simply a growth from its over luxuriant granulation."

Thomas Bryant, in the last edition of his Surgery, speaks of it as hernia cerebri, and does not mention fungous growth.

Prof. Markoe of the College of Physicians and Surgeons, New York, says

that it is granulation tissue growing from the wounded dura mater.

In regard to treatment, Gross advises compression when it can be done, but when the mass has reached a large growth, it should be ligatured or the actual cautery be used.

Lidell in Holmes' Surgery says: "The less the protrusion is meddled with the better." He condemns the use of the knife or ligature, using cold water and cleanliness only.

Bryant advocates letting it alone; no compression or ligation, but simply dressing with cerate and cold water.

Prof. Markoe teaches his students to use excision and compression application of cold water. He also recommends caustic potash to reduce the growing mass.

PEROXIDE OF HYDROGEN AS A REMEDIAL AGENT.*

BY I. N. LOVE, M. D.,

Consulting Physician City Hospital, St. Louis.

The medicament to which I propose to direct your attention in this short paper is the "peroxide of hydrogen," the formula for which is H_2O_2 , and which was discovered in 1818 by Thénard by adding dilute acids to peroxide of barium. Meissner in 1865 proved its presence in the rain water collected during thunder storms, and this has been corroborated by Schönbein, Struve and others. The usual preparation of a solution of peroxide of hydrogen depends upon the decomposition of barium peroxide by hydrochloric acid (carbonic or hydrofluoric acid may be used) in the presence of ice-cold water, and the precipitation of the newly formed barium chloride by means of sulphate of silver. Such solutions usually contain about three to five per cent. of the peroxide and are concentrated by freezing, the last portions of water being evaporated *in vacuo* over sulphuric acid, at a temperature not exceeding 68° Fahrenheit. In this form it is a colorless, transparent, syrupy liquid, with a specific gravity of 1.452; does not congeal at 22° (F), below zero; it volatilizes slowly and

without decomposition at the ordinary temperature. It is decomposed when exposed to the sunlight, or when heated or brought into contact with charcoal, silver, gold, the platinum metals, the oxides of manganese, alkalies, and other compounds; and in this concentrated form the peroxide, if brought under favorable conditions may decompose with explosive violence. If brought in presence of the oxides of the metals mentioned, they are reduced to the metallic state. Many other bodies are affected less energetically or are oxidized. Litmus and turmeric papers are gradually bleached, and the skin may be turned white by its application, accompanied by itching. In the strength to which I am now referring, it is soluble in water in all proportions, without odor; and then has a harsh and bitter taste. Solutions are decomposed by the same agents as the pure compounds, but less violently. They are made more permanent by adding a small amount of mineral acid.

The commercial peroxide of hydrogen is a three per cent. aqueous solution, and is prepared on a large scale for the bleaching of animal products, such as feathers, hair, silk, bone, etc. It is known as ten volume peroxide of hydrogen, owing to the fact that it yields about ten volumes of active oxygen, which may be estimated by adding a sufficient amount of sulphuric acid, and afterwards a standardized solution of potassium permanganate as long as the latter is decolorized. From its very nature, this agent should be a powerful antiseptic and a destroyer of microbes. Anything which accomplishes oxidation as rapidly, if it can be applied safely, must be an excellent application to purulent surfaces for its cleansing effects. It has been administered internally for diabetes, but without success. Its recommendation for some form of atonic dyspepsia would seem to be reasonable, since we know that condition to be frequently due to a catarrh of the gastric mucous surface accompanied by excessive secretion and fermentation.

I find there is considerable variation in the effectiveness of solutions coming from different drug stores. This may be due to a failure to protect it from

* Abstract of a paper read before the St. Louis Medical Society, February 4, 1888.

the sunlight. It should be kept in opaque bottles at a temperature not above 77°.

The clinical application of a remedy is the best test of its value. As a contribution to the fund of knowledge upon this subject, I herewith present the following cases:

Scarlet Fever and Diphtheria.—R. H., aged four years, an unusually intelligent and interesting boy, developed scarlet fever December 22, 1887, a pronounced case, temperature vibrating for several days from 102° to 104°, throat quite sore, some disposition to ulceration upon both tonsils. Within a week symptoms much modified, temperature ranging in the neighborhood of 100°, where it remained for four days, child being quite playful but not permitted to get out of bed. At this time diphtheria became a complication involving the pharynx and the nasal passages. The secretions from all the mucous surfaces were very profuse and purulent in character, and suffocation at times seemed imminent from its accumulation, and the odor was extremely offensive to the patient as well as the attendants. A well organized fibrinous exudation appeared over the surface of the tonsils well forward to the palate and upward into the posterior nares. The submaxillary and sublingual glands were much enlarged and engorged. Wherever a mucous surface was visible, if not covered with diphtheritic membrane, it was violently inflamed nearly to the point of ulceration and exuding a purulent and most disgusting discharge. Temperature ranged in the neighborhood of 104° and 105°; constant paroxysmal cough annoyed him, due to the general irritation and accumulated secretions, and at times a marked asthma was present owing to reflex irritation dependent upon the inflammation of the posterior nares. The general conditions were alarming, the child being almost in a state of frenzy owing to his many discomforts. Laryngeal diphtheria also became a complication. I shall not give in detail the notes of the case, as I only cite it as an illustration of the value of a particular remedy to relieve a particular series of symptoms. Having been using the peroxide of hydrogen in various

strengths for some months as a purifying and stimulating wash for purulent ulcers, sinuses and fistulæ, as well as diphtheria, I concluded to use it as an application in this case, diluting it with one part to two of water for application to the nasal passages by means of a syringe; and using it in its purity by means of probang and absorbent cotton to the pharynx. I soon had the satisfaction of seeing the pus and accumulated mucus cleaned out from all the surfaces as if by magic. The child was a bright little hero and, though semi-delirious, he helped materially in its application and also in the removal of the oxidized purulent matter. The nasal passages front and back were soon cleared out well, the fauces as well were kept in a comparatively cleansed condition. A good opportunity was now presented for applying the solution in its purity to the membrane direct, and the disintegration of the same was accomplished after repeated application in a very decided manner. Wherever the solution came in contact with organic matter, a marked effervescence and bubbling ensued and a breaking down of the accumulation or exudation and throwing off of the same occurred. The beneficial effect of the application was apparent; all the distressing symptoms were much abated, and within three or four days they had passed away. One thing quite noticeable was the fact that the constant spasmodic cough subsided after the removal of the purulent secretions from the nasal passages. The success in this case was similar to that in six other cases, and I quote this one as illustrating the class, not desiring to indulge in repetition by reporting them all. This child was in a most dangerous condition for many days and nights, and I do not claim that the peroxide of hydrogen saved him but it certainly helped to do it, in that it enabled me to combat the local poison, acting as an antiseptic, a germicide of the most pronounced character, a remover of purulent septic matter and offensive odors, aiding in the conservation of comfort to patients and attendants.

Constitutional and local measures were, of course, not omitted; constant attention being directed to elimination, sedation, stimulation and nutrition.

Purulent Ozena and Chronic Nasal Catarrh.—I have applied the peroxide of hydrogen in strengths varying from one part to three or to six of water, in four cases of the above character during the past month. Very favorable reports have been given me, enough so to justify me in considering it of great value in this affection. A sufficient time has not elapsed to enable me to determine whether it will secure a permanent cure. The application was made three times daily.

Acute Coryza.—The peroxide in the proportion of one to four of water was applied freely by means of a syringe through the nostrils; a hard rubber syringe gently throwing about two tablespoonfuls into each nostril while the head is thrown backward. It passes back through the posterior nares carrying the completely oxydized mucous secretion with it. It is then applied to the fauces in the same manner. A free sneezing and perfect discharge follows. The application is made about once in four hours in the beginning, and less frequently later. Three such cases were greatly relieved after the first application, and cured inside of a day or two. It is well-known that influenza in some cases, at least, is dependent upon some irritating germ, and possibly, the agent used above killed the microbe.

Whooping-cough.—In two cases where the paroxysms were frequent and violent, I have had great satisfaction in seeing their frequency and severity much modified by the use of the peroxide (1 to 4) twice daily, and the attack was unquestionably cut short.

Reflex Asthma.—Two cases of reflex asthma intercurrent during an attack of diphtheria, and a general catarrhal fever dependent upon the irritation in the post-nasal space were promptly relieved after a few applications of the peroxide (1 to 4).

Follicular Tonsillitis.—Very satisfactory results were obtained by using the remedy as a gargle (1 to 6), every two or three hours. Listerine, calendula and other soothing, stimulating and astringent remedies, were used by means of the atomizer during the intervals.

Hay Fever.—I have not used the remedy in this disease, but would sug-

gest from the manner of its action that it is worthy of trial.

Cancer of the Womb.—In this affection I have had great satisfaction in using the peroxide in its purity as a cleanser, deodorizer and stimulator of healing in that portion of the ulceration probably dependent upon the irritating effect of accumulated purulent matter.

The gratification and comfort to patient and attendants secured by the application, well repaid its use.

One who has never observed the horrible stench in the room, of a neglected cancer of the womb, can have no conception of the value of the drug in this connection. Dr. Joseph Grindon, a dermatologist of St. Louis, informs me he has used the agent to remove pigment spots from the skin.

This is the usual remedy furnished by dealers to weak-minded women for bleaching the hair.

It is needless for me to continue to cite cases and conditions where the peroxide of hydrogen will prove of value.

I think it worthy of trial in gonorrhœa.

After a six months' trial of the peroxide of hydrogen, considering the nature of the agent and its effect upon purulent matter and bacteria, I feel justified in determining:—

1. The peroxide of hydrogen is a most efficient means of cleansing purulent surfaces, deep cavities and sinuses, and stimulating the healing process in ulcerating parts.

2. As a destroyer of microbes, a cleanser and securer of comfort, it is of great value as a local application in diphtheria and scarlet fever; ozena, coryza and whooping-cough.

3. For the above reasons it should prove of value in gonorrhœa, hay fever and similar disturbances probably dependent upon a specific germ.

[NOTE.—After this paper had been turned over to the Executive Committee of the St. Louis Medical Society, I received the February number of the *Archives of Pediatrics*, containing a report of eighteen cases of diphtheria treated by means of the hydrogen peroxide, locally, by Dr. Marcus P. Hatfield, of Chicago. I made a preliminary report upon the subject to the Medico-Chirurgical Society of St. Louis, January 24, 1888. I am glad my own experience has been endorsed and sustained by so able an observer as Dr. Hatfield.—I. N. L.]

A SUCCESSFUL CYSTOTOMY AFTER FAILURE OF SUCTION TO REMOVE A PIECE OF CATH- ETER FROM THE BLADDER.*

BY W. W. KEEN, M.D.

THE recent suggestion of Dr. De Forrest Willard (*The Medical News*, Nov. 26, 1887) and Reginald Harrison (*Lancet*, Oct. 29, 1887), to extract foreign bodies from the bladder by the rubber bulb and evacuator of Bigelow's litholapaxy instrument, makes a valuable addition to our surgical resources in these troublesome cases and is my especial reason for bringing to your attention to-night the following case. The failure in this particular instance was due to special reasons.

J. W., a healthy man, aged 75 years, living in Elkton, Md., had suffered for a considerable time with recurring retention of urine and cystitis following an enlarged prostate. Dr. Charles M. Ellis, his attending surgeon, very wisely taught him the use of the catheter, which he has employed daily for some months. The Nélaton catheter (No. 22 French), which he has employed, having lost its rigidity, he whittled a pine stick to the necessary size, and sought by means of this to introduce it into the bladder, November 7, 1887. In the attempt the catheter broke, and a piece subsequently ascertained to be four and a half inches long, broke off and passed into the bladder. Severe pain and retention followed immediately, and persisted until after I operated upon him. Dr. Ellis, having failed in his efforts to extract the fragment, sent him to me, as surroundings at home were unfavorable for any operation.

Three days after the accident I made similar and repeated unsuccessful efforts at extraction with forceps and lithotrites. I was not even able to detect the fragment.

On November 11 and 13 I attempted to remove it by suction with Bigelow's evacuator. On the last occasion, Dr. Willard kindly helped me personally. We repeatedly filled the bladder with warm boiled water, being careful to keep the extremity of the evacuating tube just at the vesical extremity of

the urethra; but suction had no effect in engaging the fragment. This was amply explained later, by finding that it lay crosswise, and was so long that both ends were held fixed by the walls of the bladder, while the relative rigidity of the short fragment prevented any possibility of its being brought to the opening of the evacuating tube, though we sought for it through the tube by Dr. Willard's forceps. An evacuating tube with a lateral eye gave no better results than one with an opening at the end. I also used a rectal bulb filled with seven ounces of warm water, but all to no purpose.

After debating between suprapubic and lateral cystotomy, I decided upon the latter, in consequence of the observation of Harrison and others, that the prostate sometimes shrinks after perineal cystotomy, when a tube is retained in place for some time. Accordingly, Dr. Wm. J. Taylor etherized him, and I did left lateral cystotomy with a staff. The operation presented nothing unusual. The prostate was markedly enlarged in its lateral lobes, so that I was barely able to get my finger into the bladder. With the ordinary lithotomy forceps I quickly seized the fragment by the middle, removed it, and introduced a rubber drainage-tube with a flange, by which it was easily retained in place by tapes. His temperature never rose above 99°, and in six days he went home, with my instructions to retain the tube in place for two months, and then to remove it and allow the opening to heal. By this means I hoped to be able to avoid the necessity for the subsequent daily use of the catheter.

December 5, after nearly five weeks retention of the drainage tube in the bladder, I found that, owing to his feebleness, want of care and cleanliness, the tube was proving a source of irritation and slight suppuration. Accordingly, December 10, I removed the tube. In three days the wound closed sufficiently to cause him to void his urine by the urethra, and he was no longer obliged to rise at night to relieve the bladder. The prostate has shrunk to some extent, so that he no longer needs to use a catheter. Whether this will be permanent, or is only temporary, time alone will determine.

* Read before the Philadelphia County Medical Society, at the stated meeting, Dec. 28, 1887.

A NOTE ON CUCUMBER OINTMENT.

BY LOUIS GENOIS,
Apothecary.

THIS ointment, at one time quite popular, seems to have in latter years fallen into disuse, more likely, however, from neglect than from any attributable cause; and yet when properly made it is an elegant preparation, possessing a refreshing odor and forming an excellent application for softening the skin of the hands.

Some care is required to preserve it in good condition as it is prone to rancidify in time; the usual way is to cover it with a layer of rose water and to keep it in a cool place.

There have been a variety of processes for the preparation of this ointment, the older ones of which are too cumbrous and elaborate for practical purposes; the few apothecaries who still continue to keep it in stock make it by first preparing a distilled essence of cucumber and then mixing this with benzoinated ointment in the proportion of one of the former to four or five of the latter; thus made the preparation is very smooth and creamy, and is of handsome appearance and fragrant odor. The distilled essence of cucumber is made by distilling a mixture of one part of grated cucumber and three parts of diluted alcohol, and collecting the first two parts of distillate that come over.

As a vehicle for medicated ointments the cucumber ointment is admirably adapted, mixing readily with vegetable powders; extracts (previously softened with the proper fluids) the metallic oxides, etc., but physicians seem to prefer the various petrolata, the zinc ointment and other excipients.

Cucumber ointment is also said to be good to heal frosted toes and to assist the growth of the hair. (?)

1201 Chestnut Street.

PROF. AUSTIN FLINT, M.D., LL.D., will deliver the annual address before the Alumni Association of the Jefferson Medical College, on Monday evening, April 2, in the amphitheatre of the hospital. A reception will subsequently be held at the Hotel Bellevue.

HOSPITAL NOTES.

AT THE MEDICO-CHIRURGICAL HOSPITAL.—As an antiseptic and disinfectant for obstetrical requirements, Stewart prefers Labarraque's solution, a tablespoonful to the pint of water.

NERVE-SECTION FOR NEURALGIA.—On March 3, Garretson performed at his clinic a delicate and skilful operation. It was the resection of the superior maxillary division of the fifth nerve, for an intense and persistent neuralgia. The skin was dissected back, exposing the anterior external wall of the antrum of Highmore. A circular opening, about an inch and a quarter in diameter, was made in this wall by means of the surgical engine. Part of the floor of the orbit holding the nerve was then removed in the same way. Finally, the spheno-maxillary fissure was enlarged, so that the surgeon could enter the spheno-maxillary fossa and cut off the nerve at its exit from the foramen rotundum. The patient is relieved of his neuralgia and is doing well. Garretson has performed this beautiful operation a number of times, and always successfully.

VOMITING IN INFANCY.—Avoid giving alcoholic stimulants to young children, if possible. If a stimulant is absolutely necessary, give aromatic spirits of ammonia. For the vomiting of small children with dyspepsia, give gtt. j. carbolic acid in f3j lime-water: one teaspoonful to as much milk every two or three hours. (Atkinson).

TREATMENT OF SYPHILIS.—McConnell holds that syphilis is a self-limited disease: it tends to get well, whether treated or not; that so-called "tertiary syphilis" is not syphilis at all, for it cannot be inoculated; that a patient with "tertiary syphilis" may with impunity be allowed to marry; that a man with syphilis should be constantly treated for eight or nine months, and at periods of a few months apart for a year longer; and should be kept under observation until three years have elapsed after beginning treatment; that a woman should be kept under observation for five years, with correspondingly longer periods of treatment.

BRONCHITIS IN ELDERLY PATIENTS.—Woodbury considers twenty minim doses of dilute phosphoric acid, along with elixir of cinchona, of good service in bronchitis of elderly people. If there is much cough, give also syrup of wild cherry.

ICHTHYOSIS.—Shoemaker showed at his clinic a boy of five years of age, afflicted from birth with ichthyosis, or fish-skin disease. The child's mother said that sixteen doctors had at different times promised to cure the disease: and all had failed. The lecturer remarked that there was nothing at present known which would effect a cure; but that the disease could be masked by the application of different preparations: oil of ergot, for instance, scented so as not to be offensive.

EPILEPTIC CONVULSIONS.—What would you do if you were suddenly called to a patient lying in an epileptic fit? Loosen all tight clothing; place him in such a position that he cannot hurt himself; put something between the teeth, to prevent the tongue from being bitten; then give him a few whiffs of nitrite of amyl, or failing that, of ether or of chloroform. (Atkinson).

PAINS IN THE BACK, NOT LUMBAGO.—Waugh believes that the lumbago of dropsical patients is frequently caused by the "water-logged" condition of the muscles in the dorsal region. He exhibited at his clinic a case which had obstinately resisted ordinary myalgic treatment, but which yielded at once when a heart tonic was given.

PHYSICAL EXAMINATION.—In examining the condition of the spinal cord, Pancoast advises against pressing the fingers on the spinous processes: pain here simply shows that the periosteum is inflamed. He shocks the cord by smart, quick blows with the fist along the spinal vertebree.

HOW TO PALPATE THE ABDOMEN.—Let the patient take a deep inspiration; and when he exhales, at once follow the abdomen firmly with the palm of the hand.

ANEMIC HEADACHE.—Longstreth (Pennsylvania Hospital) presented a girl, 18 years old, who complained of

severe headache and constant vomiting; her appetite was good, tongue coated, and he designated it "starvation headache." Though the stomach may be full of food, it cannot be digested and assimilated for want of muscular activity. He says the principal action of digestion is due to the contractility of the stomach. He gave her very small doses of milk and lime-water at frequent intervals, and vomiting soon ceased. For the blood he ordered carbonate of iron.

TREATMENT OF GASTRALGIA.—Longstreth also showed a woman suffering with gastralgia accompanied with vomiting. He gave her $\frac{1}{2}$ grain of calomel to relieve the vomiting, and 15 grains of bicarbonate of soda to reduce the mucous secretion; then lime-water and milk. He says such a patient should have food in small quantities at frequent intervals.

INTESTINAL CATARRH.—Another patient 20 years old, complained of pain in the abdomen and bowels, headache, fever, quick pulse, constipation, pain in the right iliac region, and some swelling in the inferior maxillary region; the right tonsil was inflamed, and her tongue was coated. Longstreth said it was a catarrh of the bowels. He gave her twenty grains of chloride of ammonium every four hours, with the intention of acting on the mucous membrane. For swollen tonsil he ordered turpentine stupes to the neck. To a patient who complained of cramps in the abdomen, diarrhoea with mucous discharges, tongue red and denuded of the epithelium, he gave bismuth combined with charcoal to prevent fermentation and systemic irritation. He says that the bowels should not be allowed to be constipated, and the bismuth only acts as a sedative; but if the bowels move very frequently, with great pain and tenesmus, opium is indicated.

CARBOLIC ACID IN HÆMORRHOIDS.—Hunt (Pennsylvania Hospital), in operating on a case of hæmorrhoids by ligation, spoke of treating hæmorrhoids or hydrocele by injection. He stated that the injection of carbolic acid in the pure state is never attended with danger of poisoning; whereas the weak solutions

may be absorbed, and poisoning may follow.

CONTUSIONS, WITH RUPTURE OF THE LIVER.—Hunt calls attention to accident cases where the patient is buried under earth which has caved in, and says that such should always be considered very grave accidents; the patients generally die of rupture of the liver in eight or ten days after the injury.

STAB-WOUND OF PERICARDIUM.—Hunt reported a case of stabbing which occurred on board of a vessel. When the patient was received in the hospital there was found a wound on the left side of the chest, just below the coracoid process of the scapula, extending downwards and inwards, penetrating the lungs. The knife apparently had passed between the pericardium and heart. Patient is emphysematous, otherwise doing well; temperature not over 100°.

TRANSLATIONS.

ALPHA-NAPHTHOL.—Maximovitch has presented the results of his investigations of alpha-naphthol. It is insoluble in cold water; soluble in hot water to the extent of 4 parts in 10,000. Ten grammes can be dissolved in one litre of water containing 400 c.c. of absolute alcohol.

In liquids, such as ordinary meat-broths, alpha-naphthol, in the proportion of 1 to 10,000, completely prevents the development of the microbes of glanders, splenic fever, chicken cholera, bacterial carbuncle (charbon), pneumonia-cocci, both suppuration-organisms, of *clou de Biskra*, of *Tetragonus*, and of the bacilli of typhoid fever and of pigeon diphtheria.

In the proportion of 20 to 25 to 10,000, alpha-naphthol completely prevents the germination of the tubercle-bacillus; while in 10 parts to 10,000 it checks it. Introduced into the system, alpha-naphthol is less toxic than beta-naphthol. To kill a rabbit, requires 9 grammes per kilo; so that the toxic dose for a man weighing 65 kilos would be 585 grammes. Introduced beneath the skin, in saturated alcoholic solution, two grammes have sometimes produced

albuminuria; while death resulted from the injection of 3.5 to 4 grammes per kilo. By the veins, a dose of 0.13 gr. per kilo caused death. As compared with beta-naphthol, these results indicate that the latter substance is inferior to alpha-naphthol by reason of the greater toxicity and less antiseptic strength.—*La France Medicale*, No. 22.

ON SO-CALLED SPONTANEOUS TETANUS.—Verneuil, in a communication to the Académie des Sciences (*La France Médicale*, Feb. 16, 1888), opposes the idea of the spontaneous occurrence of tetanus, and declares positively that, if sufficient care be taken in examining cases reported to be such, it will always reveal the port of entry of the virus, which is the sole and real cause of the malady. He communicates the clinical history of a case which was declared to be without lesion, but which, it was subsequently ascertained, suffered with a deep and hidden ulceration of the pharynx. This he declared to be the point of entrance of the poison into the system.

In conclusion, he called attention to the throat as a not uncommon site of infection where a preceding lesion existed. In three out of twenty-seven cases of so-called spontaneous tetanus which Verneuil has published, this was found to be the case. The proportion of three out of twenty-seven certainly deserves attention.

[In this connection the following is of special interest. Dr. Beumer, of Greifswalde, reports a case of fatal tetanus in a man who ran a splinter under his nail while playing at ten pins. Some of the wood and the earth from the bowling alley were taken, and rabbits and white mice inoculated with cultures. Tetanus and death speedily ensued. The same results followed in every instance, thus showing the existence of a virus in the wood of the alley and in the soil beneath.

Beumer also reports a second case, occurring in a child five years of age, where a portion of the skin from the neighborhood of the wound produced tetanus when introduced under the skin of rabbits; thus proving the identity of tetanus in animals and in man.—*Deutsche Med. Zeitung*.]

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, MARCH 15, 1888.

EDITORIAL.

AN OPPORTUNITY FOR TEMPERANCE ADVOCATES.

THE tendency in the United States appears to be towards moderation in the use of alcoholic drinks. In our Eastern cities, the spectacle of a drunken person upon the streets is not as common as it was twenty years ago; and when such a sight is presented, the subject is far more likely to be a foreigner than a native-born citizen. Nor can this be held to be due to the greater tendency to secret indulgence by our compatriots. As significant of this, we note that the British medical journals contain many pages of the cards of private inebriate asylums, while such advertisements are almost unknown in American journals.

The typical American is far too keen a business man to fuddle his brain with alcohol. Like Hugh Miller, he prefers to have every faculty at his command, and fully realizes the disadvantages one labors under when his judgment is unsettled by toxic agents. The national devotion to business undoubtedly has its effect in helping the cause of temperance.

A more important factor is the universal diffusion of knowledge, and the modern attempt to familiarize every school-boy with the physiological and pathological effects of alcohol. It is a source of regret to the physician's mind that some text-books are filled with lurid and untrue pictures of the effects of drink; for when the pupil discovers the exaggeration, he is apt to discredit the whole affair. It would be

better to stick to the simple truth; it's surely bad enough.

An attentive examination of the work of the great temperance agitators leads us to the conclusion that their ulterior results are but trifling. We hear of hundreds taking the pledge; but the percentage of permanent cures is small. "The dog returns to his vomit," and when the first burst of enthusiasm is over, the newly-made converts backslide with unanimity and celerity. And this is to be expected; for even in the conversion of sinners the principles of science find a place. Instead of seeking to sweep one away from his moorings by opening the floodgates of emotion, a study should be made of the causes which determine the aberration from morality, and of the application of means to obviate those causes.

For this reason we attribute more influence to the establishment of cheap coffee-houses than to the efforts of the evangelists. The free lunch proved a great attraction to the saloon and encouraged tipping; and the recognition of this fact, with the opening of five-cent lunch counters, constitutes the most conspicuous advance of modern times for the temperance advocates. With these the springing up of places where milk is retailed by the glass, and hot coffee, chocolate and beef-tea in winter, or mead and soda in summer, have proved to be powerful blows struck at the liquor interest. Men need not resort to whiskey-punch to warm their chilled blood when nutritious and palatable drinks can be had as readily. Cold lager is inviting on a sultry summer's day; but the insurance men tell us that the beer-drinker does not live out his allotted time, and mead, milk, or seltzer are just as cooling, if less invigorating. The barkeeper himself has been forced to recognize the popularity of these beverages, and to add

beef-tea, buttermilk and even chocolate to his list.

But our main purpose is to point out another means whereby the temperance men can make a move just as scientific, and consequently as certain to be effectual.

Why is it that so many men who are temperate in their youth become moderate drinkers in middle life, and much worse in old age?

Granting that the struggle for existence tells most heavily when the elasticity of youth is gone and the system is enfeebled by previous disease, there yet remains a very large number of cases in which nothing of the sort can be alleged.

Perhaps the love of luxury which comes when one has retired from active business, is responsible for many cases. When one reaches this blissful haven, he is apt to have acquired with his riches a profound admiration for himself; and he will venture into dangers he would have shunned in his earlier and less conceited years.

But a further explanation may be found in the condition of the urinary apparatus. When a man passes his fortieth mile-stone, with his increased rotundity, his "growing taste for early news," etc., there comes an increased frequency of calls to micturate. If he be a countryman, this is of little moment. But in the city, it is different. When one starts to go down to his office, and the impulse to evacuate his bladder comes on imperatively, what is he to do? Decency and law alike forbid the defiling of public thoroughfares. Delicacy prevents the trespass upon private property. The hotels may be utilized if one has the necessary assurance to disregard the placard which says, "For guests only." But the most readily available place is after all the saloon; and insensibly the habit

is formed of dropping into the nearest bar-room, making use of the urinal and contributing to its support by taking a glass of beer.

The best use to which the temperance societies could apply their surplus funds, would be to start an agitation to compel the large cities to erect public urinals, such as exist in many European cities. This would cut off a large source of income from the saloons, and would favor the sanitary condition of the city at the same time.

Now that the action of the high-license law is lessening the number of saloons, the agitation for this purpose is peculiarly well-timed.

W. F. W.

MULTIPLE SYNCHRONOUS AMPUTATIONS.

AMPUTATIONS, in order to be strictly synchronous, would be required to be simultaneously performed upon the patient by two or more operators. The advantage of such coöperative procedure consists in the rapidity with which the end is accomplished, with the minimal amount of shock and exposure. Multiple synchronous amputations of digits or parts of members for frost-bite, or other injury, are not uncommon. Multiple major operations, however, are rare among primary amputations and are frequently fatal. Technically, amputations are still included under the title of synchronous operations, when they are performed by a single operator; although, in reality, performed consecutively, they do not come under the head of consecutive amputations.

A case of triple synchronous amputation, the gravity of which makes it unique among surgical records, was reported by Professor Ashhurst at the last meeting of the College of Physi-

cians of this city. The patient, after being run over by a train of cars, was brought, without delay, to the Hospital of the University of Pennsylvania, which was near to the scene of accident. In addition to crush of right leg above the knee, avulsion of the left at the lower third, and crush of right wrist, the patient had suffered laceration of the scalp and fracture of the frontal bone. A triple primary amputation was performed of the right thigh, left leg, and right forearm, and the patient made a good recovery.

In connection with this case, Prof. Ashhurst reported fifteen double amputations, with ten deaths (seven in one day, one in three days, one in four and one in eighteen) and five recoveries. He had operated once before for railway injury, removing both legs and the right forearm, in a patient who died of alcoholism ten days later. He also referred to the case of Dr. Koehler, of Schuylkill Haven, in this State, where both legs and the right arm were successfully amputated. Lowman, of Johnstown, and Stone, of New Orleans, have also reported cases, and Agnew refers to one done in York by a surgeon whose name was not given. Triple operations not synchronous have oc-

curred in the hands of Léséleuc, Ritter (2), Marten, Bruberger and Field; numerous unsuccessful operations of this kind have been done, but need not be here referred to.

A remarkable case of quadruple synchronous amputation was done by Dr. George E. Jackson, of Dakotah, and the patient recovered. Other quadruple amputations, not strictly synchronous, have been recorded by Müller, Begg, and Champenois, the latter removing three limbs and subsequently the fourth one. Others have been referred to by systematic writers on surgery, such as Morand, Longmore, Southam, and H. Larrey.

Prof. Ashhurst in explaining the technique of the operation made the startling remark that many of these cases of multiple major amputation really die from too great exposure and chilling of the body. He therefore omits constant irrigation of the wound and the use of wet towels, which are commonly regarded as necessary to the antiseptic system. He employs antiseptic dressings because the opening of the stump is less frequently required than under the older methods of treatment. He presented the following statistics of his multiple synchronous operations:—

Double	Man,	21.	R. arm and r. leg.....	Died....	18 days.	Pyæmia; had suppurat'g ear-disease.
"	"	25.	L. thigh and r. foot....	Died....	1 day..	Shock of injury.
"	"	48.	R. forearm and l. leg...	Recov'd.		
"	"	25.	L. arm and l. leg.....	Recov'd.		
"	"	40.	R. forearm and l. leg...	Recov'd.		
"	"	19.	Both legs.....	Recov'd.		
"	"	35.	R. arm and r. leg.....	Died....	12 hrs..	Shock of injury.
"	"	5.	L. thigh and r. leg....	Died....	3 hrs..	" "
"	"	35.	Both knees.....	Died....	8 hrs..	" "
"	"	ad.	Both arms.....	Died....	3 days.	Head injuries, etc.
"	"	15.	R. hip and l. leg.....	Recov'd.		
"	"	ad.	R. leg and l. arm.....	Died....	9 hrs..	Shock of injury.
"	"	ad.	R. knee and l. leg.....	Died....	4 hrs..	" "
"	"	32.	R. shoulder and l. leg...	Died....	4 days.	Head injuries, etc.
"	"	25.	R. shoulder and l. arm..	Died....	11 hrs..	" "
Triple.	"	21.	Both legs and r. for'arm	Died....	10 days.	Alcoholism.
"	"	20.	R. forearm, r. thigh and l. leg.....	Recov'd.		(Also had c. fracture of the skull).

PHYSICIAN, AND SOMETHING MORE.

In the *Druggist's Circular* for March appears a paper by L. A. Sayre, in reply to Mitchell's letter in the *TIMES* of December 15.

Dr. Sayre grasps the elephant by the head; and we must say that he gives a very fair description of that end of the animal's body. So far as the leading members of the medical and the pharmaceutical professions are concerned, he occupies tenable ground. But not in ten per cent. of the cases do his ideas fit. There are many thousands of scattered hamlets in this country which are unable to support a physician, a dentist and a druggist; but which would afford a good living to one who united all three characters in his own person. How many doctors eke out their incomes by farming? Much better do it by pharmacy, dentistry, or veterinary surgery. We have as yet heard nothing to alter our first opinion: that the true system lies in a conjoined course, which instructs one in *all* the branches of the healing art, and leaves him to follow one or the other, as inclination or opportunity may determine.

W. F. W.

THE THIRTY-SIXTH ANNUAL COMMENCEMENT OF THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA was held at the Academy of Music, March 15, 1888. Prof. Rachel L. Bodley, dean of the faculty, delivered the address to the graduates, of whom there were twenty-seven. In the address a pointed allusion was made to the fact that the Philadelphia County Medical Society still refuses to acknowledge the existence of women-physicians.

IN MEMORIAM: AUSTIN FLINT, M.D., L.L.D.—A bust of the late Prof. Flint was unveiled with proper ceremonial, at the Carnegie Laboratory of the Bellevue College, on the tenth inst. Dr. Abram Jacobi delivered an address suited to the occasion. Many invited guests participated in the ceremonies.

LETTERS FROM SPECIAL CORRESPONDENTS.

LETTER FROM PARIS.

PLASTIC surgery with transplantation of animal skin, as formerly tried by Czerny, of Vienna, has lately become quite the rage in France. MM. Peyrot, Monod and others have had very good results by transplanting frog skin, with which they filled up quite large losses of substance. The latest effort in this line is that made by M. Redard, who uses *chicken skin*! One of his patients was a young girl who, after a very profound burn of the head, had still, eight months afterwards, almost all of her head in a state of supuration which weakened her very much, and indeed threatened her life. After two months' time, an entire regeneration of the scalp was obtained with chicken skin. The part restored measured seven centimetres by eight centimetres; this will give an idea of the extent of the operation. It is possible to use chicken skin, as it is fine and soft; while it is highly-vascular, and adheres well to all surfaces without any sutures being needed. It sticks on without reabsorption, and forms little epidermic islands, as it were, that extend on all sides and form new tissue that is quite different from ordinary cicatricial tissue. It is proposed to study the histological modifications that take place during this process of repair, and we will give details of it later. For the moment, it will be sufficient to say that the skin used should be taken from quite young chickens, from under their wings, and that it should not be deprived of cellular tissue; but it should not have any fat. All the subcutaneous tissue must be taken up along with the skin, and the flaps are to be at least from half a centimetre to one centimetre. No sutures are to be used, as it will stick on without, and cannot be easily displaced. The wound must be aseptic, and the dressings must be made with great care. Iodoform gauze is used, with a layer of antiseptic cotton, without too much pressure.

An interesting study has been made here on "The Relation of Diphtheria in Man to that of Animals." It had

been freely stated that the disease was identical in both, and transmissible from one to the other. M. Delthil takes the matter up again, and gives a number of cases where, for instance, the children of people keeping and selling fowls were constantly attacked with diphtheria; and others, where the chickens had seemed to give it to all who had to do with them. The long list of proofs need not be given, as the conclusions may be accepted on our statement. They are as follows: 1st. That the identity of diphtheria in man and animals is probable. 2d. That transmission from one to the other is possible. 3d. That diphtheria can be transmitted to persons at a distance by a person who may himself remain healthy. The latter fact was shown by a man who brought to a house, pigeons for sale, that were afterwards shown to have had the disease, as they died of it in the hands of the person who bought them, and gave the disease to his children, one of whom died; yet the man who brought the pigeons remained well.

Professor Tarnier, of the Maternity, and Professor Budin, of the Faculty's accouchement hospital, give some practical points of general interest, on the hygiene of new-born infants as the authors have a very large experience in such matters, and their system is accepted and used in all the children's homes and hospitals in Paris. French physicians in private practice all advise as they do; but from saying to doing is as always a far cry; and so the old-fashioned system of using what they call here the "*petit pot*," or giving the baby a little of everything that is in the cooking pot of its elders, still goes bravely on. But that must not prevent us from saying what is the best system of feeding babies, even if, like these distinguished authors, we preach in a wilderness. They first set forth that all healthy women should nurse their babies. Certainly all intelligent French women admit that woman's milk is the best food for infants; but they have no intention of being the woman that gives it. The universal custom in Paris is to put the child out to nurse. The rich classes hire a wet nurse; but they are the small minority. The great majority send the

babies out to the immense baby farms outside of Paris, where, according to the price paid, they are either raised by a supposed (?) wet-nurse, or else they are brought up on the cow's milk bottle; sometimes asses' milk or goats' milk is stipulated for. Troops of goats and asses are to be seen in the morning going about the streets of Paris, and they are stopped and milked before the client's house, for the few babies that remain in town.

There are many reasons why the French send the babies out of Paris to be raised. That madame don't care to be bothered with nursing is the most important reason; but it must be admitted that she is often the cashier and book-keeper of the establishment, and in the lower classes she must go out to work. In all classes this is an old-established custom; for the truth is that house-rent is dear, and as all live in apartments, room is scarce, so there is no place for baby. Most French families only see their infants from time to time until they are able to walk. But, to give Drs. Tarnier's and Budin's ideas: A nursing mother should always take great care to wash the point of her breast before giving it to the child, and see that the little one's nasal orifices are not closed by her breast. The child's lips and mouth must also be washed after nursing, and sugared water must not be given to it while waiting for the mother's milk to rise, as it is called. As a rule, the baby needs nothing for hours after birth; but, if anything must be given, let it be a little asses' milk in which one quarter of sugared water is put. Notwithstanding that the bottle is not recommended, still it is better to make baby suck, because it is not well that he should be spoiled by showing him, in giving him food with a spoon, that he can get it without the trouble of sucking. Thus early he must be taught to work for his living, or else, later, trouble will be sure to arise. In regard to how often he is to be fed, the rule here is, both in nursing and in artificial alimentation, to give food during the first few months every two or three hours during the day and twice during the night; in all, eight to ten times in the twenty-four hours. After six months the child should only be nursed every

three hours, six times a day, and once or twice at night; but the quantity should be increased. The following is a table of quantity needed for an average child:

	Each nursing. Grammes.	In 24 hours. Grammes.
1st day.....	3	30
2d day.....	15	150
3d day.....	40	400
4th day.....	55	550
1st month.....	60	600
2d and 3d month..	70	600 to 700
4th and 5th month	100	700 to 800
6th month.....	120	800
7th month and on.	150	900 to 1000

The last is about a quart a day.

There is only one sure way for a physician to know if a child is really getting its right quantity of milk: that is to see it weighed *before being nursed and afterwards*. Nurses will often say that the child feeds well, when it may be getting almost nothing at all or losing what it gets on its bib.

The digestion of newly born infants must take place according to a special method that differs from that of adults in important particulars. Its digestive organs are only incompletely developed at birth. Having no teeth, it cannot be questioned that its food must be liquid in form. In the infant's mouth it is certain that no change takes place in the food if milk be given. But what happens if starchy matters are given? Bidder and Schmidt and Burdach held that the salivary glands were not sufficiently developed at birth to work. Even if there was a little saliva, there was no ptyaline; and, there being no ferment, no change of starch into sugar took place in the mouth when starch was given; but the studies of Scheffer and Zweifel show that there is some saliva, and that the parotid gland contains at least a very feeble proportion of ptyaline; but certainly the fact is that the saliva of young infants, at least for the first three months, is very small in quantity, and contains little, if any, of the ferment needed to change starch into sugar. Their food then passes on to the stomach almost, if not quite, unchanged. And here it must be remembered that an infant's stomach is extremely small; according to Fleischmann, its capacity is not more than 45 cubic centimetres at birth; after the first week it rises a little, and at the

fourth week it is 90; at third month only 140; 260 in fifth month; and 375 cubic centimetres at the ninth month. It is almost vertically placed in the body when the infant is erect. These facts indicate a deduction: *i.e.*, that food must be given often and in small quantities.

M. C. Richet, the present Professor of Physiology, Paris, has written lately on the question of infant stomach digestion; he says that the milk is coagulated on arrival in the stomach by the gastric juice much quicker than it is in the adult stomach, owing to greater power of the pepsine in infants; egg albumen, however, is difficult of digestion; gelatinous substances are dissolved by the gastric juice, and milk sugar is transformed into grape sugar, but this last takes place mostly in the intestine. The albuminoids not dissolved in the stomach pass into the duodenum, when the pancreatic fluid transforms their reaction from acid to alkaline, acts upon them by the ferment Kühne calls *Trypsine*, but it *has not the power of changing starch into sugar during the first month of life*, curious to say. Absorption is very active in the intestine, and the bile is poured out in large quantity, making the stools almost without bad odor, as it prevents putrefaction. To sum up the results of Paris practice, it may be stated as a fixed rule here, that no other kind of food but milk is allowed during the *first five or six months*, as it is proved that premature alimentation is badly supported. Even young animals when given any other food than milk, get diarrhoea and a swollen stomach, or belly, but their development is, of course, much more rapid than babies, so they stand it better. As to the best form to give to commence with, it is rather difficult to decide; some use condensed milk, but this is not always well supported, owing to the fact that not enough water is added to it. If given in the first month, use a teaspoonful of it to sixteen of water; twelve of water in third month, and so on, reducing it up to one to four, which is about normal milk, except that it is too sweet. All starch foods are bad, as the rule. Guillot showed at autopsies of babies fed with starch foods, that their intes-

tines were coated with starch, shown by the iodine test turning it to a blue color. Starch foods must not be used in any case before the sixth month, and they are mostly useful in the second year; cane sugar is used to sweeten milk, but infants' stomachs do not support it well, and it is better to use milk sugar, which can easily be had nowadays. It is a curious fact that cows' milk does not suit infants during the first few months, and yet after the fifth month it suits very well. This was proved by giving it to children who were being fed by hand, and comparing their weight with those fed by a wet nurse; it was seen that for the first months the babies fed by the mother increased in weight very much over the ones fed with cows' milk, but *after the fifth month* the ones fed on cows' milk increased in weight faster than those fed by the mothers. To sum up then, this is the system approved of here for infant alimentation: Failing the woman's milk, asses' milk is given, *pure*, for the first two months, if not three; after this time it is considered too light in quality, and cows' milk is used. It is useless to have that of one cow, and a good quality is chosen which is used as follows: Filtered or distilled water is sweetened with 50 grammes of milk sugar to 1000 grammes of water, and three parts of this sugared water is added to one part of milk at the normal temperature of the body. This proportion is gradually and regularly reduced as the months go by, so that at six months pure milk is given and soups and starch foods are gradually added. *Nothing else is allowed before the sixth month.* The results obtained by this method are remarkable, as Professor Tarnier has proved, in raising children born at six months, with the added use of his *couveuse* and *gavage*; for before the use of these, all the babies born at six months died. Sixteen per cent. are now saved. At seven months, one-half are saved; at eight months, nearly ninety per cent.

The treatment of typhoid fever by cold baths, often called Brand's system, is again agitated in Paris. Professor Hayem says about it that typhoid being a specific malady, its microbe being now well-known, a specific

treatment should be opposed to it; but as we have no such treatment as yet, we have to be satisfied with empiric methods, such as this of Brand's, which used to be given in all cases, but is now almost abandoned in Paris. Its indications are hyperthermia and adynamia, and it is owing to the action on these symptoms that it does good, but it is not in any way shown that this method gives any better, if as good, results as the means now used in its place. Professor Hayem, who is the Paris Professor of Therapeutics, says he uses, according to indications, only alcohol and sulphate of quinine. Tepid baths, cold lotions and the wet sheet constitute also, says Dr. Hayem, good methods to lower temperature and united with the therapeutic methods mentioned, they are certainly better than an exclusive use of the Brand's method.

Doctor Straus has just been named as a full Professor of the Paris Faculty, in the place of Professor Vulpian, who died last year. The chair is that of "*Professeur de Pathologie comparée et expérimentale.*" It is expected that Dr. Straus will fill it with considerable distinction, as he is a well-known bacteriologist and writer. He was one of those who went out to Egypt during the cholera times, when Koch found his "*komma*" bacillus, and Dr. Straus found it also in healthy intestines.

THOMAS LINN, M.D.

Paris, February 20, 1888.

HERNIA.—From an analysis of 1000 cases of hernia occurring in private practice, De Garmo comes to the following conclusions:

1. That by early mechanical treatment a large percentage of hernias occurring under middle age can be cured.

2. That, while there is no intent to underrate the value of surgical measures in suitable cases, it is believed that the greatest relief to the greatest number can be afforded by the more careful and scientific mechanical treatment of hernia.

3. This end can only be attained by the personal attention of the practitioner instead of allowing such cases to go into the hands of unprofessional and incompetent persons.—*N. Y. Med. Jour.*

ABSTRACTS AND GLEANINGS.

TREATMENT OF DIPHTHERIA. — All the successful treatments of diphtheria are based upon the use of either sulphur or chlorine. We find figuring prominently in prescriptions for diphtheria the tincture of iron and chlorate of potash. But we do not know if the chlorine in these compounds is readily set free in the blood; in fact, we do not know what chemical changes take place in them when once they have entered the circulation. We do know that they must be given in large quantities and often repeated, if we obtain good results from their use. I believe the good obtained from such remedies is due wholly to the fact that they contain agents which we know are destructive to bacteria; but I also believe that we can use the agents in forms far preferable to those mentioned. If, without injury to our patient, we can introduce sulphurous acid or free chlorine into the blood, I see no reason why we cannot destroy the micrococci, arrest their further development and cut short the course of the disease. This I believe we can do, by the use of either the sulphite of soda or chlorine, if we can get sufficient quantity of the remedy into the blood before the micrococci have multiplied too greatly or done too great damage to the blood.

Sulphite of soda readily gives up its sulphurous acid: a substance recognized and employed daily as a destroyer of various bacteria.

The question now arises, does the sulphite of soda so break up in the blood as to yield sulphurous acid? Rabuteau claimed that it did not, and wrote an elaborate article in support of his belief. More recent experiments have proven the contrary; and sulphurous acid is found in the urine of patients taking sulphite of soda, six hours after taking a dose. Here, then, I believe we have not a specific but a remedy, which if employed in time will cut short the disease, and which we can safely use as a prophylactic; and by its use prevent the spread not only of diphtheria, but also of scarlet fever, and possibly other contagious diseases. The remedy is harmless, and may be given in doses of ten grains or more

every three or four hours. It may cause the bowels to act too freely, in which case we can diminish the dose or control the bowels by other remedies.

In cases where we may have been called in late, or where the disease assumes a malignant type, I believe we have a more potent agent in chlorine, given as follows:

Take chlorate of potash \mathfrak{Zij} , powder finely, and put into a twelve or fourteen ounce bottle; to this add \mathfrak{ss} of hydrochloric acid, and then stopper the bottle. The acid coming in contact with the chlorate of potash, chlorine gas is liberated and fills the bottle. Now pour into the bottle \mathfrak{zii} of glycerine, replace the stopper quickly and agitate, thus allowing the glycerine to take up the chlorine. Then fill the bottle with water and cork tightly. We now have the chlorine in solution, and can give from one to two teaspoonfuls of the mixture, p. r. n. This I believe will rarely fail to destroy the micrococci, even though they be quite numerous. The chlorine is a powerful heart stimulant, and must be given with some caution, and would probably be unsafe as a prophylactic, and we hold it in reserve for use in such cases as before indicated.

Besides these two agents, the pharmacopœia abounds in drugs which may prove equal or superior to either of those selected.

Besides this special treatment, designed to attack the micrococci, we must remember that diphtheria is a disease especially characterized by great constitutional depression, and the patient should be stimulated early and freely. For this purpose good whiskey or brandy is preferable, and may be given in considerable quantities. We should also make use of such local applications to the throat, in the form of sprays, as may seem most beneficial.

Tracheotomy, or intubation, may be resorted to by those so circumstanced as to avail themselves of them.—JONES in *Atlanta M. & S. Journal*.

[Of the virtues of nascent chlorine we are fully aware; our experience of thirteen years in its use having convinced us that no other agent known

to us has equal power in destroying the specific germ of diphtheria. But we must express our regret that Dr. Jones has not called attention in his able paper to the vital importance of the *early, local germicidal* treatment. His pathology is also at fault, as in attributing the phenomena of the disease to micrococci circulating in the blood, he overlooks the importance of local treatment. For instance, when evidence of profound toxæmia exists, and disappears completely after the naso-pharynx is cleansed of its septic contents, without any internal medication, it is hard to avoid the inference that the toxic symptoms were not due to micrococci in the blood, but to the circulation in this fluid of the toxic products (ptomaines) of these organisms.

Later in the progress of the case a true ingress of the disease germs to the blood takes place, and after that, local disinfection fails to give such beneficial results.

Whether the blood can then be so saturated with chlorine as to be rendered aseptic, is exceedingly doubtful. Indeed, if the heroic use of calomel shall fail to warrant Daly's enthusiastic recommendation, we have no remedy for this state of affairs.—W. F. W.]

STATISTICS OF ACUTE ARTICULAR RHEUMATISM.—In the Report of the Collective Investigation Committee of the British Medical Association, we find the following statistics concerning rheumatism:

Death rate in total abstainers, . . .	5.36
" " " temperate persons, . . .	3.74
" " " intemperate " . . .	8.82
Per cent. of heart complications in total abstainers, . . .	48.99
Per cent. of heart complications in temperate, . . .	45.03
Per cent. of heart complications in intemperate, . . .	46.87

The greatest prevalence of the disease was shown to occur in high, dry, exposed localities; next to this in low damp and confined places.

Tonsillitis occurred as an antecedent in 24.12 per cent.; scarlet fever in 13.43 per cent.; chorea in less than 2. per cent.

The influence of treatment upon the average duration of the disease was as follows:

Salicylates,	19.03 days.
Salicylic acid,	10.7 "
Salicin,	23.92 "
Alkalies,	36.30 "
Alkalies, followed by salicylates, . . .	22.22 "
Salicylates and alkalies combined, . .	34.92 "
Salicylates and then alkalies, . . .	30.64 "
Salicin and alkalies,	24. "
Salicylates and potas. iod., . . .	46. "
" " iron,	27.7 "
" " tonics,	18.68 "
Alkalies and opium,	18.75 "
Salicylates and then iron and quinine,	20.33 "
Salicylates and opium,	30.3 "
" " blisters,	15.88 "
Alkalies and then quinine,	35. "
Salicylates and quinine,	31.6 "

The fever disappeared first from the use of salicylates and blisters, the average being 6.14 days. Next come:

Salicylates and tonics,	8. days.
" alone,	8.65 "
Salicin,	9.28 "
Salicylates and opium,	9.9 "
" iron and quinine,	10. "
" and quinine,	10.5 "
Alkalies and quinine,	10.75 "
Salicylates, followed by alkalies, . .	10.78 "

Salicylates and potas. iod. bringing up the list with an average of 17.14 days.

The speediest disappearance of pain ensued from the use of salicylates and opium—average, 8.45 days; the salicylate group follow, in 10 + days; and the salicylates and potas. iod. come last, with 24.16.—*Brit. Med. Jour.*

[This, however, is in accordance with our own experience in the use of iodide of potassium. This drug is of little utility in acute rheumatism, but of the greatest value in cases which have been prolonged until they threaten to become chronic. At this time, a rapid cure follows the administration of this drug, which may have been previously used in the same case without benefit. Hence the long duration of cases treated by it in the above table may be explained, as well as the favor in which it is held by many who have succeeded with it when "everything else had failed."]

ABORTIVE TREATMENT OF SYPHILIS.—Jonathan Hutchinson opens his paper upon the above subject as follows:

"For many years past, I have been in the habit of assuring patients who came to me with indurated chancres but without any other symptoms, that they would in all probability wholly escape

the secondary stage. As years have gone on, I have found myself holding out this hope with increasing confidence. My treatment has been almost uniform, and has consisted in giving mercury in the form of gray powder in one grain doses, three times a day at least, and more frequently, if the symptoms did not more quickly yield. I have always told the patient that he must take these pills for six months at least. At the end of six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption, never severe, never papular or scaly, and always vanishing in a few days if the mercury is resumed.—*Brit. Med. Jour.*

THE ORAL WHIFF.—Cheesman relates the following case in the *New York Medical Record*: A gentleman, aged thirty-three, had always enjoyed excellent health, and was quite athletic during early manhood, but inherited a neurotic temperament. Had smoked considerably, and been much harassed by business during the season of 1886. When shooting early in September, and in pursuing a grouse through heavy underbrush, he became considerably blown. Sitting upon a fallen tree to recover wind, he observed that the sound of his breathing, particularly in expiration, was intermittent, giving a puff at each beat of the heart. The expired air, instead of leaving the mouth in an even, prolonged current, came in a series of whiffs which may be represented quite accurately by the sounds *huh, huh, huh, huh*. These were loudest at the commencement of expiration, and became fainter toward its close. Inspiration was similarly broken, but the interruptions were less marked. As the heart's action was quieted down, this pulsation of the breath became less and less noticeable, till it finally ceased. A second run, however, reproduced it exactly as before. At no time was the subject conscious of any pain, or shortness or difficulty of breathing. As he had never observed the phenomenon before, even during the exertions of his old athletic work, he sought medical advice.

Examination of the heart discovered no abnormality whatever. Its sounds

were clear; no murmur could be found over any part of the chest. The action was, however, rapid, and complete abandonment of tobacco and coffee was advised. The respiratory sounds were also even and regular. I could not detect the puff which was described, but as the patient said that exertion would bring it back, I asked him to run up and down stairs several times. The sound was then plainly heard by the ear held about a foot distant from the patient's open mouth. I listened with the stethoscope over the chest, but could not distinguish it there at all. When the instrument was applied along the trachea, however, it came out loudly, and had the characters already described. Drummond's "oral whiff" as a sign of thoracic aneurism came to my mind, and therefore, though there were neither symptoms nor physical signs of this disease, I re-examined for it carefully and repeatedly, but with an entirely negative result.

This subject now enjoys excellent health, but exertion always reproduces the puff in his breathing. When carefully listened for, it can also be heard even when he is at rest. He has often heard it faintly *when lying in bed at night*.

EARLY SYMPTOMS OF TUBERCULAR MENINGITIS.—Elsner, in the *Buffalo Medical and Surgical Journal*, calls attention to the following symptoms of the earlier stages of tubercular meningitis in children: First—Altered disposition. Second—Headache. Third—Vomiting and constipation. Fourth—Cerebral maculae. Fifth—Ptosis and facial paralysis. Sixth—Convulsions. Seventh—Pulse and fever.

DR. JOHN C. PETERS, in the *Annals of Hygiene*, suggests that when the streets of a city are torn up, the escape of noxious gases should be rendered harmless by sprinkling a solution of bromine, one pound to 250 gallons of water, wherever these excavations are in progress.

GASOLINE FOR EPITHELIOMA.—An old woman had for 12 years a tumor on the bridge of the nose, close to the corner of the eye. This tumor had always been regarded as an epithelial cancer and was so pronounced by all the

physicians who had examined it. I have observed the growth for many years and always considered it malignant. Its history was that of epithelioma. It began as a small pimple or speck and very slowly grew in size and spread in area. At times it was very red and itched intensely. Its surface ulcerated and secreted pus. When I last saw the tumor about three years since, it was in circumference about the size of a nickel and considerably elevated above the surface of the surrounding skin. Early in February she hailed me on the street to show me that her "pet" was gone. I was much surprised at finding not the slightest trace of the tumor left, nor even a scar in the skin! She told me that she had used nothing but gasoline on it, applied according to her statement, as follows: She took a little wad of cotton, wet it with gasoline and placed it upon the tumor and allowed it to remain for a few minutes and then threw it off, repeating the operation from day to day until the whole growth was gone. The suppurating surfaces dried up and the tumor simply shrank away. Gasoline is not a caustic, nor even an irritant to amount to anything. There can be no doubt but that the tumor, whatever it was, was literally cured by the application of gasoline.—*Williams, in St. Louis Med. and Surg. Journal.*

REVIEWS AND BOOK NOTICES.

NASAL POLYPUS, WITH NEURALGIA, HAY FEVER AND ASTHMA, IN RELATION TO ETHMOIDITIS. By EDWARD WOAKES. Published by P. Blakiston, Son & Co., Philadelphia. 12mo, pp. 140.

The distinguished senior aural surgeon of the London Hospital calls attention to the hitherto neglected subject of ethmoiditis. That general medicine is greatly indebted to the labors of the specialist may be seen by the following extract from the work before us:

"There is a form of headache, of a more or less neuralgic type, associated with ethmoiditis, which may be termed basal headache, from the fact of the situation of the pain corresponding pretty accurately with the base of the skull.

Thus it affects the back of the eyes, the temples, as well as the mastoid and occipital regions on both sides. Occasionally one side of the head only is thus affected; but in either case it is accompanied with a sense of weight at the back of the head. There are usually present, when it acknowledges a nasal origin, symptoms directly referable to the nose: such as a sense of stuffiness, profuse discharge, sneezing, etc."

It is worthy of note that those whose special work lies in the mouth and nasopharynx have reduced greatly the field of essential trigeminal neuralgia. In fact, we understand that Garretson denies the existence of such a neuralgia; claiming to find in every case a material cause within the reach of the surgeon. This leads us to refer the work of Woakes to the general practitioner rather than to the specialist.

A STUDY OF THE HISTOLOGICAL CHARACTERS OF THE PERIOSTEUM AND PERIODONTAL MEMBRANE. By G. V. BLACK, M.D., D.D.S. Published by W. T. Keener, Chicago. 8vo, pp. 138.

The volume is almost entirely a record of the personal observations of the author, who is the Professor of Pathology in the Chicago College of Dental Surgery.

The style is unusually clear for a work treating of so strictly scientific a topic. The recent revival of the ancient custom of replanting teeth gives unusual interest to the study of the periodental membrane, as the failure of a large proportion of the cases appears to be due to some mal-condition of this membrane.

The book is another example of the best form of modern book-making; the paper, typography and illustrations deserving more than a passing notice.

CHEMICAL ANALYSIS OF HEALTHY AND DISEASED URINE. By T. C. VAN NÜYS. Published by P. Blakiston, Son & Co. 8vo, pp. 187. Price, \$2.00.

Dr. Van Nüys is Professor of Chemistry in the Indiana University. The evidence of experience and ability as a teacher is to be seen in the clearness and precision with which the various manipulations are described. The work embraces the recent investigations of

Zuelzer, Lepine and Kieldahl upon the excretion of nitrogen. Pavy's pellets for Fehling's tests are not mentioned. With this exception, the work is brought down to the present, and forms an admirable guide to those who wish a thorough knowledge of the chemical examination of the urine.

RECTAL AND ANAL SURGERY. By EDMUND ANDREWS, M.D., LL.D., and E. WYLLYS ANDREWS, A.M., M.D. Published by W. F. Keener, Chicago. 8vo, pp. 111.

The object appears to be primarily an expose of the "methods" of the itinerants who have of late been traversing the country and transmuting "piles" and "pockets" into piles of money in their own pockets.

One effect has been to compel the profession to pay more attention to this hitherto neglected specialty. Another has been the introduction of a really valuable method of treating hemorrhoids.

The history of this method is exceedingly interesting. To Dr. Andrews is due the credit of having discovered the secret and put a stop to the sale of "district rights."

The injection method was looked upon with disfavor by the English specialists, Allingham in particular, and it is due to the efforts of American writers that it has won its place.—W. F. W.

DR. TAYLOR, of *The Medical World*, is to be credited with providing for the profession the only Visting List in existence which can be presented as evidence in a court of law. With this he has published a Ledger of Monthly Balances and Index of Accounts. The price of the set is \$2.00. For this sum the physician receives a complete set of books for his accounts, which yet can be carried in the pocket.

THE EFFICACY OF COCA ERYTHROXYLON. Published by Mariani & Co.

In this the publisher has collected the endorsements of Mariani's cocaine by prominent physicians in this country, with practical notes upon the uses of this drug. In truth, the array of notable names is a strong one; far too strong in standing, as well as in numbers, to allow of the charge of in-

terested motives. The book may be obtained by applying to the publishers.

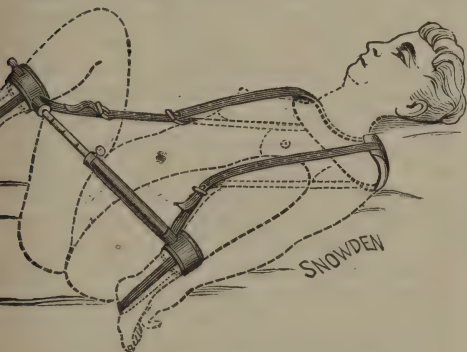
MESSRS. W. H. SCHIEFFELIN & Co. send us their revised treatise on Salol; containing valuable information concerning the uses of this new remedy.

MISCELLANY.

DESTROYING MICRO-ORGANISMS. — In the present state of our knowledge, it is hopeless to expect to destroy micro-organisms, and more especially their spores, in the tissues of the lungs by the inhalation of germicide remedies. Antiseptics may, perhaps, reach micro-organisms lying in the mucus or pus on the free surface of the bronchi, in a sufficiently concentrated form to destroy them. It is conceivable, though not probable, that the same may be true in the case of those lying free in the alveoli, or very superficially placed in the tissues. Micro-organisms more deeply placed, and especially those in areas of consolidation, as in tubercle, can only be reached by germicides introduced into the fluids which bathe the tissues. And as these fluids are in constant circulation it is necessary to obtain even a local action of any long duration, that the whole of the fluids of the body should be impregnated with a percentage of the remedy sufficiently high to enable it to act as a germicide. This, in the case of all germicides hitherto tried, is incompatible with the life of the host. Taking a man of ten stone, it is a low estimate to put the total weight of blood and lymph at fifteen pounds, disregarding the fact that all the so-called solid tissues, with the exception of bone and epidemic structures contain an average of 60 to 70 per cent. of water. Fifteen pounds contain 105,000 grains. To make this fluid into a solution of 1 to 100,000 of corrosive sublimate—far too weak a solution to kill spores, though they might not grow in it—would require a dose of more than one grain, that is two ounces of liquor hydrargyri perchloridi of the *British Pharmacopœia*. To make a one per cent. solution of carbolic acid would require a dose of more than two ounces. This difficulty was ably pointed out by Koch,

in his article on disinfection.—*Zymotechnic Magazine*.

A MODIFICATION OF THE "PERINEUM DISTENDER" TO AVOID ITS INTERFERENCE WITH RESPIRATION.—Dr. W. W. Keen exhibited this apparatus at a recent meeting of the County Medical Society and said: "In the frequent use of the 'Perineum Distender' I have found the strap which passes under the nape of the neck very objectionable. This strap flexes the legs and supports their weight. While doing so the weight of the legs pulls the head and neck strongly forward, and thus often seriously embarrasses the respiration.



"To avoid this, I have had the wooden shoulder-piece of the old Day's apparatus for fracture of the clavicle slightly shortened, and find it answers admirably. Under its loops, over each shoulder, two straps are passed, with a buckle turned wrong side foremost at one end. The other free end, after passing through this buckle in the arm-pit, then is buckled to the cross-piece between the legs. By this means the pressure is brought on the shoulders instead of the neck, and respiration is entirely unimpeded.

"I have also had two straps attached at right angles to the straps for the legs. By this means the leg-straps can be secured above the calf as usual or at the ankle. In the latter position the new straps, by passing under the foot-soles, more completely flex the legs, and get the feet out of the way of the operator."

EMPHYSEMA PULMONUM.—Prof. Rudolph Virchow made a report on the above subject before the Berlin Medical Society last December, and exhibited a number of specimens. He said Laennec

had described two forms of emphysema, the vesicular and the interlobular. In the first of these forms he knew that there occurred a gradual loss of lung-tissue, followed by atrophy of the septia, and that large spaces formed in this manner, developed into cavities under favorable circumstances. Laennec also thought that this shrinking of the lung-substance was the cause of the dyspnoea and the disturbance of the circulation shown by the increased dilatation of the veins, and the gradually augmented cyanosis.

If we contemplate the preparation of an emphysematous lung, (which has been expanded, dried and cut through) we see large cavities instead of the smaller ones made by the alveoli. This condition always develops in isolated places, and we see normal tissue in the immediate vicinity. On closer inspection these cavities show that they are not only dilated alveoli, but that they always represent a number of alveoli which are aggregated together in a single cavity. If the process advances, the cavity becomes larger, and the entire lobule goes gradually over into a similar condition. If the thorax be opened we see the lobule, which is attacked, projecting over the surface of the lung; in some cases, others in particular parts, form little cysts projecting from the lung surface. In longer duration of the process, the septa are not spared and the cavities of the adjacent lobules blend together. Such lungs go gradually into a system of cavities in which only strips of the old septa remain.

The old representation, which was also partly accepted by Laennec, sprang from the assumption that this confluence depended upon a tearing of the alveolar walls, and that their tearing was due to the increasing pressure on the walls, which was caused by the entrance of air. Many conditions seem opposed to this assumption. In the next place, no one has ever observed any form of hemorrhage in connection with such conditions. There is, more over, an objection to this, in fact, that no one can produce tearing of the alveolar walls by mechanical distension. The air which is driven out through this original opening can not gain entrance

into the neighboring alveoli, while in a lung, in a perfect condition for respiration, the alveoli are already filled with air. In this way no union of two kinds of alveoli can occur. We also notice that as soon as a rupture results, it is in the form of an interlobular emphysema.

Laennec held that the changes in question, were those of the disease, which he has described by the name of "dry catarrh," and he was of the opinion that, in individuals who had already complained of chronic catarrh, they had an acute catarrh engrafted thereon. In this connection there is an element which rightly claims a prominent place, namely, that the air which has come into the diseased part does not come out again, and, also, that a deficiency remains in the expiratory process. Laennec did not know, what was made quite clear later, that generally in condition of chronic bronchitis, a closure of the little bronchi could occur, but, that when this obstruction had a certain duration, an atelectasis was developed, and exactly contrary to what occurs in this disease, the incarcerated air disappears by absorption. When this atelectasis continues longer, then atrophy of this section of the lung gradually takes place. Emphysema can only originate when, at the least, a certain part of the air passages are passable, so that fresh air can always gain admittance. Recent observers, particularly those who have come nearer to the question experimentally, have failed because they have sought to prove a narrowing of the principal air passages; and, in consequence, a difficulty of expiration. There is, however, no case of emphysema known where from the commencement, there was an accompanying change through large sections of the lung.

If there is truly a narrowing of the nasal cavity, or the larynx, or a large bronchus, as the cause of the emphysema, one must also find the entire field of this canal in a similar condition of dilatation. There are cases enough in which there are stenoses of various kinds in the different sections of the respiratory tract, but they are local (at least those in which emphysema is observed), while on the contrary the

greater number of the emphysematous have no change in these principal parts of the respiratory tract.

The contemporary and successor of Laennec, Andral, maintained that there was a large number of individuals in whom the appearance of the emphysema could be traced back to a very early youth, and he was inclined to believe that in these cases the tissue of the lung must show what the changes mean. Another consideration was now brought into the discussion of this question which was rather a hinderance to its solution.

Louis, in Paris, Andral himself, and later, Rokitansky, indicated a form of emphysema which was connected with a kind of hypertrophy. The lecturer would not deny that such cases occur, but they occur very seldom and still more rarely do they extend over a large surface of the lung. We must acknowledge that the pure emphysema is a condition which deals not so much in hypertrophy, but much more of a rarefaction (Rokitansky) or a necrobiotic process (Virchow). The tissue melts away, disappearing in large sections leaving no trace. It must fall completely to pieces and be either expectorated or be removed by absorption.

This general emphysema is in no way a frequent appearance, Prof. Virchow found 0.3 per cent. of all cases in the list of cases received in 1877-85 in the Charité Hospital, in which the clinical diagnosis of emphysema had been made.

Andral raised the question how far backwards can we follow emphysema? It sometimes occurs that the section of the lung, which is affected by emphysema, is quite colorless, that is, the carbon is absent. Now it is known that this is first found in very marked quantities about the fifth year. Hence, he surmised that the emphysema commenced previous to the fifth year.

THE STUDY OF INFECTIOUS DISEASES.—Dr. Sternberg, in his address before the American Public Health Association, made the following timely suggestions:

The exotic pestilential diseases are the levers which move corporations to make sanitary improvements. But for

sanitarians, aside from their effect in this way, they are of secondary importance. The number of victims they claim is small compared with the number who succumb to certain indigenous or naturalized infectious diseases which are equally subject to control by well-known sanitary measures. The chief aim of the American Public Health Association should be to ascertain what measures are most effectual for the restriction of their endemic maladies, such as typhoid and malarial fevers, and for the banishment of all diseases in which the contagion is given off from the persons of the sick, as scarlet fever and small-pox. So far as diseases of the last mentioned class are concerned, we know how they can be stamped out: namely, by isolation of the sick and disinfection of all infectious material; and, in the case of small-pox, by vaccination. Our main mission is, therefore, to insist upon the thorough execution of these measures.

But our mission is not only to teach the public how to guard against infectious diseases by quarantine restrictions, isolation of the sick, disinfection, and municipal sanitation, but also to teach them the principles of personal hygiene. Not only will their individual susceptibility in the presence of an epidemic depend largely upon their personal habits and mode of life, but we must show them how often organic and functional diseases of the various organs essential to life are induced by excesses in diet, improper food, and intemperance. A most important part of our work in the future should consist in popularizing information of this kind.

The association cannot afford, on account of its limited resources, to offer prizes for special investigations; but small appropriations should be made to cover the necessary expenses for carrying out special investigations in sanitary science.

In Baltimore, New York, Boston, Philadelphia, Brooklyn, Ann Arbor, and other cities, well equipped laboratories are in operation or in process of construction, where bacteriological investigations can be made.

The work of the Committee on Disinfectants is practically completed.

Other special investigations should now be undertaken by the association. A special fund should be raised by voluntary contributions for this purpose. A biological investigation of the water-supply of cities and towns of the United States would be very desirable to be undertaken at present.

The prophylaxis of infectious diseases by inoculation of attenuated virus is also a promising field of study.

ELECTRICAL TREATMENT OF UTERINE FIBROIDS AFTER APOSTOLI.—An Edinburgh correspondent writes that Keith accepts the teachings of Apostoli. "Keith and son in less than five months have applied electricity in strong, and accurately measured doses more than 1,200 times upon more than 100 patients, the majority being cases of uterine fibroids. The labor of these operations was very great, but it opens out a study which increases daily in interest. Several cases came to them for hysterectomy in uterine fibroids. After treatment by Apostoli's method these women have all gone home without operation, with menstruation almost normal and improving after their return. In every case the tumor was reduced in size, the pain gone and they enjoyed the freedom to walk about and life itself in a way to which they had long been strangers. In one case only has there been a return of hemorrhage. The tumor had gone down two-thirds, and unwilling to detain her longer in town she was permitted to go home too soon. Should these improvements be permanent, and he has every assurance from the experience of Apostoli that they will be, the field of hysterectomy is reduced to the narrowest possible limits. He would consider himself guilty of a criminal act, were he to advise his patient to run the risk of her life before giving this treatment a fair trial. Dr. Playfair has been experimenting industriously on this subject since his return from the summer holidays. He is not quite decided concerning it in all respects, but does not hesitate to declare it a therapeutic measure of much power and considerable promise. I doubt however, if it will fulfil Apostoli's enthusiastic estimates. He has found it very valuable in membranous dysmen-

orrhœa and chronic endometritis, with glairy glutinous discharges. One or two of his cases have been quite remarkable and have yielded to two or three applications. Playfair has had one remarkable case of rapid absorption of a large fibro-myoma under negative electro-puncture. The case had been under his observation for years, by the application of currents of 100, 150 and 200 milliamperes, it has been reduced from the size of a large human head to that of a small orange. There was, however, considerable pyemic and constitutional disturbance which at one time caused considerable anxiety. If not carried out with care and discrimination, this electrical treatment may cause serious accidents."

A NEW REMEDY FOR PELVIC INFLAMMATIONS.—Buckmaster writes to the *New York Medical Journal* of a new remedy for pelvic inflammations. In a case of pyosalpinx, he saturated a pledget of cotton with a solution of ichthyol, about one per cent., and placed it against the mass. The next day the patient was able to attend to her household duties.

He reports having used the sulphichthyolate of ammonium in seven cases of intractable pelvic inflammation, and with all obtained relief; in four with particularly happy results.

MÜTTER LECTURESHIP.—Dr. Allis has begun a course of lectures on "Surgical Pathology of the Articulations," which are delivered on Tuesday and Friday evenings at eight o'clock, at the College of Physicians, northeast corner of Thirteenth and Locust streets, from March sixth to April sixth. The Fellows of the College and medical profession are invited.

—Officers of the Philadelphia Obstetrical Society for the ensuing year: *President*, Thomas M. Drysdale, M.D.; *Vice-Presidents*, Charles H. Thomas, M.D., J. C. Da Costa, M.D.; *Secretary*, J. M. Baldy, M.D.; *Treasurer*, Alfred Whelen, M.D.; *Curator*, T. Hewson Bradford, M.D.

EVENING CLINICAL LECTURES.—The Faculty of the Polyclinic have organized a course of Clinical lectures, the first of which was given Feb. 28th, by Dr. Henry Leffmann, on "Office

Testing of Urine." Members of the profession are invited to attend.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 12, 1888, TO FEBRUARY 25, 1888.

LT.-COL. EDWARD P. VOLLUM, SURGEON.—Granted leave of absence for four months, with permission to go beyond sea, and to apply for an extension of two months. S. O. 41, A. G. O., Feb. 20, 1888.

CAPT. E. F. GARDNER, ASSISTANT-SURGEON.—Granted leave of absence for one month and mileage. S. O. 41, A. G. O., Feb. 20, 1888.

CAPT. WM. H. ARTHUR, ASSISTANT-SURGEON.—Leave of absence extended two months. S. O. 35, A. G. O., Feb. 13, 1888.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING MARCH 3, 1888.

SURGEON T. C. HEYL.—Orders to the Receiving-Ship "St. Louis" revoked.

SURGEON C. H. WHITE.—Present duty continued to Oct. 1, 1888.

SURGEON T. H. STREETS.—Ordered to the Receiving-Ship "St. Louis."

SURGEON M. C. DRENNAN.—Ordered to the Receiving-Ship "Vermont."

SURGEON G. R. BRUSH.—Detached from the Receiving-Ship "Vermont," and to the "Pensacola."

PASSED ASSISTANT-SURGEON VICTOR C. B. MEANS.—Detached from Naval Hospital, New York, and to the "Pensacola."

MEDICAL INSPECTOR A. A. HOEHLING.—Detached from the "Pensacola," and wait orders.

PASSED ASSISTANT-SURGEON G. E. H. HARMON.—Detached from the "Pensacola," and wait orders.

PASSED ASSISTANT-SURGEON J. M. EDGAR.—Detached from the "Pensacola," and wait orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING MARCH 3, 1888.

STONER, G. W., SURGEON.—Detailed as chairman of Board for physical examination of officers and candidates, Revenue Marine Service, Feb. 28, 1888.

URQUHART, F. M., PASSED ASSISTANT-SURGEON.—Detailed as recorder of Board for physical examination of officers and candidates, Revenue Marine Service, Feb. 28, 1888.

KULLOCH, P. C., PASSED ASSISTANT SURGEON.—Relieved from duty at Pittsburgh, Pa., ordered to Marine Hospital, San Francisco, Cal., March 2, 1888.

CURRINGTON, P. M., PASSED ASSISTANT-SURGEON.—Relieved from duty at Marine Hospital, San Francisco, Cal., ordered to assume charge of service at Pittsburgh, Pa., March 2, 1888.

KINYOUN, J. J., ASSISTANT-SURGEON.—Granted leave of absence for twenty days, Feb. 28, 1888.

PHILADELPHIA MEDICAL TIMES.

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No. 530.

APRIL 2, 1888.

VOL. XVIII

CLINICAL LECTURE.

MEDICAL CLINIC.

BY WILLIAM F. WAUGH, A.M., M.D.,
Professor of Practice of Medicine in the Medico-Chirurgical College.

Delivered March 5, 1888. Reported by Manley F. Gates, Medical Student.

SPINAL NEURASTHENIA. GASTRIC ULCER.

GENTLEMEN:—The first case that I present to you to-day is a young German, a baker by trade. He comes to us complaining of being easily fatigued and of pains in his legs on walking; at times he becomes dizzy. He sleeps poorly; is obliged to rise frequently to micturate and is not refreshed on waking. His statements seem clear, but his actions are so peculiar that his friends think that something must be wrong with his mind. He has, however, no delusions or evidences of mental aberration. He does not complain of fornication or being bound by a girdle. His feet perspire freely and sensation in them is normal. This man's occupation renders him peculiarly liable to take cold, as bakers work before very hot ovens and are then apt to sit on the door-steps, in the chilly night air, to cool off after their work. This custom makes them unusually frequent subjects of spinal disorders.

So far, the history of this case is a typical one of spinal neurasthenia, but we have as yet reached only half the diagnosis.

One point I have purposely omitted mentioning to you, to impress more firmly on you the necessity of not stopping as soon as you think that you have reached a diagnosis, but of pursuing the study further to find out if there may be any other cause for the symptoms than the one which you have discovered.

The patient has a stricture in the membranous portion of the urethra, which is congested and sensitive, and the passage of even a very smooth sound gives rise to great irritation. He has never had gonorrhœa, nor has he ever received an injury of the perineum.

From the history the patient gives me, there is no doubt in my mind that the cause of the stricture was masturbation. So we see that the case is not one resulting from cold but from reflex irritation. He says that in Germany he once had nervous fever, a name there applied to those cases of typhoid in which the nervous symptoms are prominent.

This may have left him with a predisposition to nervous disorders; in fact the effect produced by the irritation shows that the nervous system was in a depressed condition.

The German system of universal compulsory education, I believe, results in harm, because it is often carried beyond the capacity of the people, and the results are manifested in diseased minds. A pint mug will only hold a pint, and any attempt to crowd in more will certainly cause it to burst.

This system, I think, accounts for the frequency of shocking crimes, and especially of suicides and other results of a disordered mind, of which this is but one example, which we find among our German population.

It is not every arm which can be developed into that of a Sullivan; not every heart which will sustain a blacksmith in his heavy labor. Nor can every brain take the high cultivation demanded by the present day; and the result of forced universal education is to be seen to-day in the shape of brains giving way under the strain. The limit of some men's capacity is reached when they can read, write and cipher a little. They are fitted by nature for laborers. Take them through college, give them a profession, and they end in an asylum.

The treatment of this case will consist in the gradual dilation of the stricture by the daily use of a steel sound, allowing it to remain in the urethra for about five minutes at a time. Medicinally, we will put him upon a course of iron and strychnine. Oxide of zinc, if by means of a soluble bougie it could be applied directly to the congested parts, would undoubtedly be of service; and ichthyol, from its well-known power to reduce passive engorgement of the tissues, would probably be a still more useful remedy. I shall endeavor to have it prepared in the form of soluble bougies. The patient will remain in the hospital, and in a few weeks we will probably see him go out well.

The next case is a young man who complains of not having felt well for the past nine months. Last June he fell out of his wagon unconscious, and since then he has been unable to work, as he is too weak to do the lifting required. He is easily fatigued and cannot walk more than five or six squares. His appetite is very good and his bowels regular, but he sometimes does not sleep at night on account of a throbbing in the chest. His heart is not dis-

eased. He can walk and turn about perfectly well with his eyes shut, but says that the floor seems to sink from him. He also says that his legs feel as if insects were crawling over them.

This is another well-marked case of spinal neurasthenia, and the treatment should be rest and quiet, with change of air to that of the mountains or the seashore if possible, and galvanism or stimulating liniments. He will be given $\frac{3}{10}$ of a grain of strychnine and $\frac{1}{80}$ of a grain of phosphorus, in pill form, three times a day. The phosphorus should not be given for longer than one week, then dropped and the strychnine continued.

The sexual history of this patient is quite remarkable. He had practised self-abuse moderately for about four years. About a year ago he commenced keeping company with a woman, and having intercourse with her once or twice a week. During the last three months this has been prostrating to him to an excessive degree. The last time he had connection with her was on New Year's day, and he was so weak as a result that he could not get out of bed on the following day.

Absolute rest for the sexual organs must be made an essential part of the treatment of the case; and this will be less difficult than usual, as he has little sexual desire.

In these cases the weakness felt is a real one. In their diagnosis we might be inclined to believe that the main trouble was laziness, but however lazy a man may be otherwise, he is not usually so in regard to sexual matters.

The next case I will sketch the history of from a carefully prepared report by Dr. Vansant.

Anne H., single, aged twenty-seven years, a shoe-finisher. Health good, until present illness commenced, in the summer of 1886, when she had weakness, poor digestion, anorexia, pain in the epigastrium and vomiting, sometimes with blood. These symptoms have increased until she now has almost daily vomiting, usually of food mixed with dark blood-clots, and the nausea is persistent. The pain is constant in a spot which can be covered by the tips of the fingers, radiates to the back and left shoulder, and is greatly increased

by taking food, especially of an acrid or coarse nature. She complains of a feeling of tension in the forehead and of constipation. On percussion the right lung is found to be somewhat dull at the apex. The abdomen is tender and painful on pressure, especially at one spot over the stomach, but no tumor can be felt.

We have here the history of a chronic affection of the stomach of one and a half years' standing, attended by vomiting of blood. In the first place, where does this blood come from? She has no epistaxis, and the vomiting of blood is not more frequent in the morning than at other times, as would be the case if it came from the nose and was swallowed during sleep. The cough is slight and does not yield blood. Undoubtedly, therefore, the source is the stomach. The diagnosis lies between cancer, ulcer and chronic catarrh.

The age of the patient, the absence of the cancerous cachexia and our inability to discover a tumor, are sufficient to exclude cancer. The frequency with which blood is vomited, the constant localized pain and the tenderness in the back prove that the disease is not gastric catarrh. Gastric ulcer is a disease characterized by three pains and two other symptoms. These are, a constant localized gastric pain, a much more severe pain on taking food and a sharp radiating pain running into the back and darting upward to the left shoulder. The two other symptoms are vomiting of blood, either bright or altered by the gastric juice, and constipation with anorexia and poor digestion.

This case is a typical one of gastric ulcer, and all the characteristic points to which I have referred are present. The pain after eating might be confounded with gastralgia, but in gastralgia there is absence of blood in the vomit. This woman's pain comes on immediately after eating, which is said by the books to indicate that the ulcer is at the cardiac end of the stomach.

The cause of these ulcers is somewhat obscure. Our pathologists say that in many cases they are due to the occlusion of an arterial twig by an embolus; when the tissues whose nourishment is cut off are dissolved by the gastric juice. It is true that the ulcers corres-

pond to the distribution of a small artery, but where the embolus came from we are unable to say. Clinically the disease is always attended by constipation, probably partly as cause and partly as effect.

The first point in the treatment is to open the bowels, for which purpose we will give a laxative pill, containing one-half grain of aloes, once or twice a day. The old standard remedy is nitrate of silver, which, however, must often be rendered inert, being changed into the chloride. It could not possibly affect the cause of the ulceration. I believe, however, that it does relieve pain and favor healing, by giving to the exposed nerve filaments a protecting coat of albuminate of silver, and in this way it probably does good. German writers advise the use of alkalies, but this patient is too anæmic for a debilitating remedy to be employed.

These patients ought to take iron, but the drug has a singularly irritating effect on the ulcer and aggravates the symptoms greatly. It can only be given with advantage in the form of chalybeate waters. The patient should wear flannel underclothing the entire year. She will be put on the use of a cup of hot, alkaline, chalybeate water, such as the Pavilion or Excelsior Saratoga, one hour before her meals, and a pill containing two grains of the oxide of zinc and one-quarter grain of the oxide of silver, three times a day, just before meals; a treatment which I have empirically found very useful in this disease.

ORIGINAL COMMUNICATIONS.

THE USE OF ELECTRICITY IN THE DISEASES OF WOMEN (INCLUDING THE PRACTICE OF ELECTROLYSIS).

BY G. BETTON MASSEY, M.D.,

Physician to the Nervous Department of Howard Hospital, and late Electrotherapist to the Infirmary for Nervous Diseases.

FIRST PAPER.

A DAWNING reaction from the ultra-mechanical methods of the followers of the late J. Marion Sims was probably instrumental in first attracting earnest attention to electricity

as a therapeutic agent in gynecology. It was readily seen that in it lay the possibility of a wide range of direct applications, generally of a harmless nature and better calculated than any other to touch whatever neurotic element might lurk in a case. More recently, what is practically a new field has been added to the work by the showing that strong currents may be safely and effectively employed, not only for the electrolysis of tumors, but for the direct treatment of metrorrhagia, chronic metritis, stenosis of the os and cervical canal, subinvolution, chronic pelvic indurations, etc.; and the results gained promise to establish a more important addition to surgical gynecology.

At the present time, therefore, an unusual degree of professional attention is being directed towards electric applications in gynecology, embracing: from one point of view, an empirical use of faradic and weak galvanic currents applied percutaneously or directly to the vagina, uterus and bladder, mainly for the relief of *pain*—a symptom that prompts most of the plastic and resectional operations, and yet so sadly persists after many of them; and from the other point of view, a scientific disintegration of diseased tissues and neoplasms by strong but accurately measured currents, the disintegration being so controlled as to cause a mere surface cauterization at a circumscribed spot on the mucous membrane, or produce an extensive, wholly internal destruction within the body of a tumor.

While it cannot be said that the first mentioned method of using electric currents in gynecology has not already been extensively tried, it is yet true that circumstances were against anything like an adequate determination of its value until a very recent date, as the want of reliable means of measurement and dosage made intelligent experiment impossible. Since the general adoption of the milliampère-meter (although it can hardly be said to be in general use yet), a great stimulus has been given to such applications, and their true field will doubtless be speedily outlined. The scientific use of strong currents, on the other hand, is

admittedly in its infancy, and owes its professional favor to the very recent writings of Apostoli and others abroad, and Engelmann and Martin in this country.

It is in the use of galvanic currents especially, whether weak or strong, that recent progress has been attained, and its keynote has been the use of *a single pole for treatment*, the circuit being completed by a non-active pole on the surface. Definite results can thus be secured and accurately predicted beforehand, for the basis of the work has been shifted from theory to observed fact. We know much of the effect of each pole upon tissues in immediate contact with it: the polar effect, and but little of the more distant inter-polar effects. Gynecological applications of electric currents have, therefore, a distinct advantage over neurological applications—at least until such time as neurologists shall practice the same boldness in local treatment.

It is true that a full test of the practical utility of electricity in the diseases peculiar to the female sex must show that it is an agent capable of being properly applied without the need of a very great amount of technical skill. The main purpose of these papers is to show that the necessary skill can be readily gained by any one, even the proverbially busy general practitioner, if he will but consent to study the remedy in a practical way. Unfortunately, such a student must also consent to abstain from reading any but the most recent works upon electro-therapeutics, as a certain result of a perusal of many of them is a failure to comprehend the present position of electrical science. To the gynecologist it is by no means a fault of these works that they are written from the standpoint of the neurologist, for there is no essential difference in the two kinds of work; the real difficulty is a lack of clearness and simplicity that of necessity attended all electro-therapeutic writings before the introduction of the meter. Since its adoption, the most intricate laws of electrical science are capable of demonstration to the senses without calculation or figuring, and one may handle a current properly without being an accomplished electrician.

Practical experimentation with currents, not only ensures their easy control in subsequent work, but furnishes the best means of comparing the three medical currents—the galvanic, the faradic and the franklinic; and but little handling of this sort is needed to convince any one that each is an essentially different article of the *materia medica*.

APPARATUS REQUIRED IN GYNECOLOGICAL APPLICATIONS OF THE GALVANIC CURRENT.

This preliminary handling and study of the galvanic current that is so essential to intelligent work begins, of course, in the selection of the proper apparatus. This may be somewhat less imposingly complicated than usually supposed. The articles considered necessary by the writer, for both experimental and therapeutic work, are somewhat expensive, though simple. The list may be given as follows:

- (1.) A battery, or the supply terminals of an incandescent electric light circuit.
- (2.) A current controller of proper make.
- (3.) A meter indicating from 1 to at least 500 milliamperes.
- (4.) For mere experimental work, at least three sizes of cutaneous electrodes, with a sufficient number of conducting cords. A few words may be profitably devoted to each of these articles.

The Battery. The best stationary battery for all-around medical galvanic work is made up of a suitable number of a kind of cell known among electricians as an "open circuit" cell: that is, a cell that will not deteriorate during periods of idleness, that is ever ready to work well, and that possesses the single disadvantage that it requires rest for recuperation after its full power has been taxed. As the full power can never be used in medical work, this one objection has no significance. The Leclanché (prism or Gonda pattern) is in every way the best of this type in general use, and one cannot make a mistake in their purchase. The cell used by Apostoli, as made by Gaiffe, and also in this country by Otto Flemming, is an open circuit variety, in which the internal resistance is lessened in order to reduce the number required to furnish heavy currents through the slight

resistances encountered in tumor work. It has no special advantage over the Leclanché when the skin has to be traversed twice by the current. I have recently placed in my private hospital a permanent battery consisting of sixty cells of the Law telephone variety (Fig. 1). The makers claim that

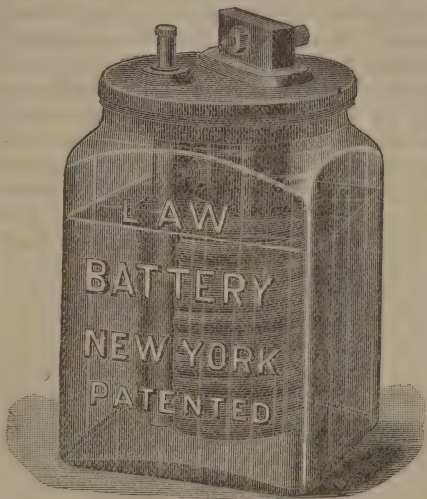


FIG. 1.—LAW TELEPHONE CELL.—New Form. the new form of carbon element shown in the figure, which they have but lately adopted, is practically everlasting, and not possessed of a definite though long existence, as is the case with the peroxide of manganese arrangement. This cell has the further advantage to the physician of being hermetically sealed to prevent evaporation, and is not an unsightly addition to the office furniture. Neither of these cells require any attention whatever beyond a very rare supply of water and chloride of ammonium, and a still rarer renewal of the cheap zinc rod employed as the negative element.*

* My experience with the gravity cell has convinced me that it is entirely out of place in a physician's battery, being exceedingly dirty from the constant accumulation of creeping zinc sulphate, and unreliable owing to the rapidity with which evaporation breaks the circuit by depressing the water surface below the horizontally hung zinc. In each of the other cells, the perpendicular arrangement of the elements permits the circuit to remain good as long as any water is left in the jar. The gravity cell is really designed only for continuous "closed circuit" work, and is only economical when engaged in constant action, under constant supervision, as in telegraph offices.

The number of either of these cells required by a physician varies from 30 to 70 or more, according to the scope of the work to be performed. Thirty cells give but little current through the skin of most parts of the body, and the number is mentioned here merely because some physicians seem to be content with very weak galvanic batteries. Forty-five cells is a reasonable number, and sixty answer most requirements. They are to be set up according to directions accompanying them, on shelves in some permanently secluded place, connected "in series": that is, the zinc of the first to the carbon of the second, the zinc of the second to the carbon of the third, and so on until all are connected.* It will then be found that the first carbon and last zinc are unconnected with anything else; to each of these attach a wire and carry the circuit to two binding posts conveniently placed to receive the cords of the electrodes. The post connected with the first carbon will be the anode (positive pole), and the one connected with the last zinc will be the kathode (negative pole) of the battery.

What are known as current selectors—that is, devices to select one or any number of cells for use—should be utterly rejected in any kind of medical battery when it is possible to obtain a current controller such as will be described directly, by means of which the current can be varied at will, without shock of any kind. Two wires only are needed when the controller is used, doing away with the great number and intricate arrangement of wires necessitated with the selector.

But, instead of the bulky office battery described, many physicians will doubtless wish a portable one, making battery work possible at the bedside as well as in the office. A first purchase is apt to take this direction, and very properly so, since cases are constantly met with that cannot come to the office. Of the portable batteries, I have been

compelled to return again and again to Flemming's zinc-carbon-bichromate battery, as one after the other promising substitute failed to bear the test of time and work.* These batteries are made with a selector on the face board, consisting of a plug socket over each cell; but where shock is to be avoided, the careful operator will use the whole battery at once, with a controller and meter in circuit, as recommended for the stationary battery. They are usually supplied with a commutator (pole-changer) also; but this means of changing the polarity of the electrodes is only essential in electro-diagnosis, and is a positive disadvantage in gynecological applications, as leading to confusion between the poles, and even accidental breaks in the circuit while at work.†

A 30-cell portable Flemming battery, freshly charged, can be made to maintain from 100 to 150 milliamperes through a circuit consisting of the patient (from embedded needle to large dispersing electrode), and a meter and water controller such as are described in this paper. Two such batteries will give from 200 to 300 ma. under similar circumstances.

The Current Controller.—This instrument I consider indispensable in electrolysis, and of great value in all forms of galvanic work where shock is to be avoided. Its function is to vary the current at will, by rapidly increasing or decreasing the resistance of the circuit. The older forms were called rheostats, and consisted of coils of wire

* The cleaning, re-amalgamating and refilling that all acid batteries demand every month, and especially when about to be used after a period of inaction, is an obstacle to their comfortable use; but no little satisfaction is given by them after being put or kept in order, as they give a powerful current considering their small bulk, and the simplicity of their repair makes it possible for the physician to keep them in order himself, without the trouble and expense of sending to the manufacturers. I have one of thirty cells that has been used by me constantly for bedside work for nine years, with but two renewals of zincs, and it is yet as good as a new one.

† The wheel shape of some of these commutators has actually led some physicians to think that the proper way to administer a galvanic current is to place the poles in situ and rapidly reverse the current by turning the crank.

* Although the connecting together of the cells of a permanent battery is so simple a thing if the exact order outlined in the text is observed, cells are frequently ruined by carelessness in this particular. When they are all to be used at once with a current controller in circuit, as advised by the writer, their proper arrangement "in series" is exceedingly simple.

of known resistance or of glass tubes containing water and a sliding rod. The coils have been entirely discarded for this purpose, for reasons that I will not now enter into, and the tube, while largely in use, has too small a range for heavy currents. The same objection may be urged against a circular pencil-mark controller devised by the writer about a year ago, and exhibited before the Philadelphia County Medical Society. Its range of resistance, however, adapts it to all ordinary percutaneous applications—in fact, all applications up to 150 ma.—and it is especially convenient for attachment to portable batteries, fitting readily into the top. It is made by Otto Flemming, of Philadelphia.

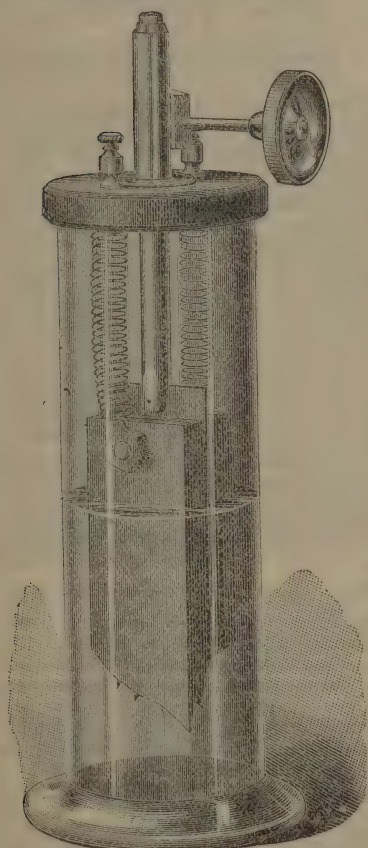


FIG. 2.—BAILEY CURRENT CONTROLLER.
(The instrument in its latest form contains some improvements not shown in the cut.)

For heavy currents, nothing is equal to the Bailey Current Controller (Fig.

2), made by the Law Telephone Company of New York. This was made originally to control the strength of the currents used in telephone exchanges, and is a development of the water tube and rod, the rod being replaced by four broad carbon plates, giving immense surface contact with the water when fully immersed. The plates taper to points below, and by means of a ratchet and pinion may be gradually immersed into the water or raised out of it, giving an exceedingly wide range of resistances, and enabling the current to be varied without the possibility of shock from zero to any desired number of milliamperes.

The Meter.—With light currents applied to skin surfaces, where the sensitiveness of the patient is added to the watchfulness of the operator, there may be ample excuse for occasionally neglecting to use a meter and depending on the number of cells in circuit; but when we have an insensitive mucous membrane, as in the vaginal, uterine and urethral tracts, situated so as to make it impossible to watch effects, it is simply criminal to use a galvanic current without adequate means of knowing the amount actually passing through the patient. Such neglect cannot be too strongly condemned. Milli-ampere meters are at present quite cheap, and should be ordered with every battery. They should register from one ma. to six or eight hundred, or even a thousand ma. Those made in this country by Flemming and McIntosh make it unnecessary to send abroad for foreign instruments; in fact, the American instruments have proven superior to the imported ones in the author's experience.

Arrangement of Circuit.—In use, the meter and current controller are inserted into the circuit by including them one after the other, between the last carbon and its respective binding post, as follows: From the last carbon carry a wire to one terminal on the controller; connect the other terminal on the controller with a binding screw on the meter; and, finally, carry a wire from the other binding screw on the meter to the positive binding post. The instruments may be arranged on a simple table, as

shown in Fig. 3, which is an illustration of a movable ward galvanic table, designed by the author for bedside use in the Infirmary for Nervous Diseases and in his private hospital. Fig. 4 illustrates a more elaborate immovable arrangement of the same switch-board elements combined with a faradic apparatus, as constructed by Otto Flemming for the operating room of the author's private hospital.

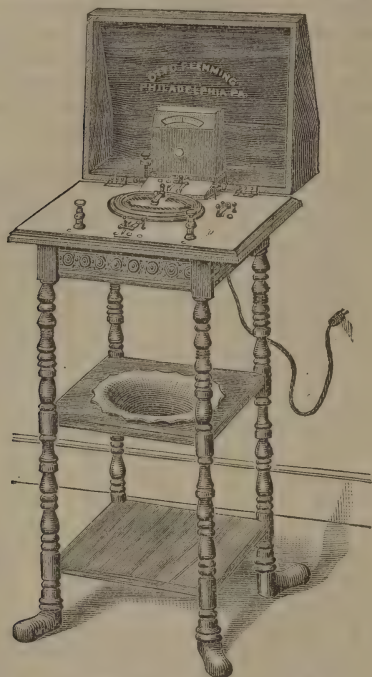


FIG. 3.—BEDSIDE GALVANIC TABLE.

For use with supply wires from an incandescent plant or a permanent battery. Connection with the supply wires is made by a double plug and socket.

Use of the Incandescent Electric Light Current in Medical Work.—This current will be found in every way well adapted for medical use, and should be preferred to that furnished by the ordinary battery of cells whenever it is possible to obtain it during the hours convenient for work. By its use the annoyances and inconveniences of a battery are entirely avoided, and a current capable of variation to any strength from a fraction of a milliamperè to a thousand milliamperès is ever at hand. The whole strength of the current is supplied by the two supply wires, and

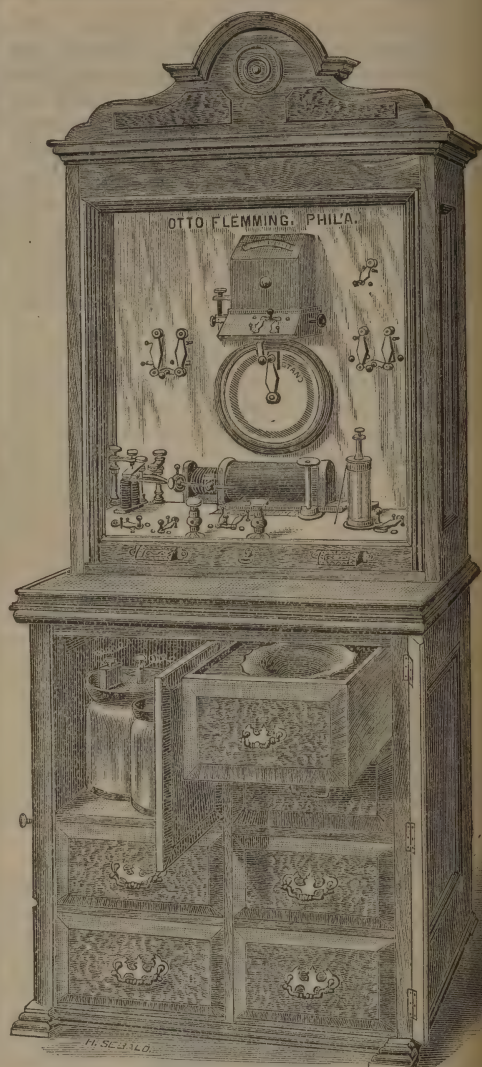


Fig. 4.—THE AUTHOR'S OFFICE CABINET.

Furnishing both currents, separate or combined. Permanent cells may be placed on shelves attached to the rear of the cabinet and the whole mounted on rollers; but usually the larger size of cells are to be preferred, kept in a separate compartment. The graphite or pencil-mark controller is shown in the centre of the switch-board.

its medical use demands, of course, some means to vary and control its strength. This is thoroughly accomplished by the controller and meter described above, their use rendering it just as safe as the current from any kind of battery. They are inserted in the circuit as follows: Connect one

supply wire directly with one of the binding posts for electrodes; the other wire is connected with one binding screw on the controller; from the other binding screw on the controller a wire is led to one binding screw on the meter; and from the other binding screw on the meter a wire is led to the remaining electrode binding post. All that is to be done now is to test the polarity of each binding-post and mark it accordingly. The controller and meter should be kept permanently in the circuit in this way—especially the former—more as a precaution against injury to the instruments by “short circuiting” than from fear of injuring the patient, as the full strength of this circuit can force no more current *through the body* than can the full strength of any ordinary medical battery of 60 or 70 cells.

The Edison circuit, direct from the dynamo, has a usual electromotive force of about 100 volts, and is therefore equal in force to about 76 good Leclanché cells. The internal resistance is practically nil, rendering it equally available for use with the galvanocausty knife as in medical work, provided proper resistances are inserted in each case. The only disadvantage is the necessity of *keeping* some resistance in circuit to prevent “short circuiting.” The current from the storage battery of the Electrical Accumulator Company is also available for medical work, although weaker than the Edison current, possessing usually from 51 to 60 volts. No incandescent current of these volt powers is in any way dangerous when transmitted through the body. Arc-light currents, on the other hand, are highly dangerous, and should never be used.

The essentials for either experimental or therapeutic work are now complete if, to the above list, be added appropriate electrodes and conducting cords. For the experimental work, we should be supplied with at least one each of the two sizes of cutaneous electrodes required as dispersing poles in therapeutic work, as well as a pair of the ordinary discs with handles usually supplied with faradic batteries, and a fine-pointed electrode (the latter readily improvised from a stiff wire). The

larger dispersing electrode must be of a size to completely cover the abdomen—viz., about 9x10 inches—made of thin sheet lead, in order that it may be made to take any shape to fit the abdominal contour. The smaller one is most convenient when not larger than 5x6 inches, and may be made of either thin brass or lead. They are best covered with a layer or two of absorbent cotton,* the latter being unrolled and cut about an inch larger than the plate, and kept in place by fine spool cotton loosely wrapped. The discs and point are readily wrapped with cotton at each using in the same way that an applicator is covered.

I have been particular to specify that a meter and current controller should accompany the battery, for the regular and invariable use of this combination not only permits of scientific and accurate work, but really simplifies the whole subject to the beginner. They may be said to be devices for relieving an operator from the burden of knowing anything of Ohm's law, or of making calculations of resistances and current strengths, although, of course, their practical value is far greater than this.

Having set up the battery or put it into operation, and connected the meter and controller in circuit, the conducting cords and electrodes may be attached to their binding posts in readiness for the first experiment.

EXPERIMENTS ILLUSTRATING THE PHYSICAL QUALITIES OF GALVANIC CURRENTS.

EXP. 1. *To test for current.*—Set the controller for least current (in the Bailey controller with the sponge tips merely touching the water), and bring the brass parts of the electrodes together: the meter will show a deflection of more or less extent. If there is no deflection, a break exists in some part of the circuit.

EXP. 2. *To test the power of the battery and the range of the controller.*—

* It is gratifying to note the widespread and general adoption of absorbent cotton as an electrode covering in place of what a writer has called “the filthy, current-absorbing sponge,” since its use was first recommended by the author, in a communication to the *Medical News*, December, 1884.

Unite the poles directly by means of a conducting cord or wire, and note the gradual increase in the current as the carbon plates of the controller are slowly immersed into the water. This procedure is wasteful of battery power, but will show the total capacity of the battery through these resistances, if the meter registers high enough.

EXP. 3. *To test the polarity of the electrodes.*—If in doubt as to which is the kathode (negative pole) and which the anode (positive pole) of a galvanic battery, place the tips of the cords in a solution of potassium iodide. The compound will be electrolysed: iodine appearing at the anode as a brownish cloud, and potassium at the kathode. If the potassium iodide be dissolved in starch water, the discoloration at the anode is blue instead of brown, the nascent iodine immediately uniting with the starch. A more quickly performed test than this is to ascertain which moist electrode produces greatest pain on suddenly making contact: that one will be the kathode, or mis-called negative pole.

EXP. 4. *Comparison of metallic contact with moist cotton to cotton conduction.*—Having set the controller for a weak current, note the number of milliamperes in circuit when the brass surfaces of the two electrodes are brought together; and the number when the two wet surfaces of cotton or sponge are pressed together.

This will show the immensely greater conductivity of brass. As the current is not intended to go right back to the battery in this manner during ordinary work, it is called "short circuiting," and is wasteful of the battery power and dangerous to the delicacy of the meter.

EXP. 5. *Application of dry metallic electrodes to skin compared with that of wet electrodes.*—Experiment now with the dry metallic surfaces of the electrodes pressed down upon dry skin surfaces. Little or no current will be shown by the meter if the skin is free from moisture, even with the controller set for full strength. Substitute wet cotton-covered electrodes for the dry ones, and a current will be shown both by the sensations and the meter.

The current passes with exceeding ease from metal to metal when in contact, either dry or wet; but passes from dry metal to the body with difficulty. This is because the cuticle is practically a non-conductor; not until the air-spaces of its horny layers are filled with water, which is a reasonably good conductor, will it permit the current to penetrate to the moister tissues below, and even then the bulk of the current passes through the sweat ducts and any congested or abraded spots. Electrode coverings are therefore designed merely to hold a layer of water between the metallic surface and the skin, acting as a liquid joint.

In making the experiment just detailed with dry metallic points instead of a flat surface, an intense burning sensation will soon develop if the full number of cells are used and the points well pressed down. This burning coincides with the appearance of some current in the circuit, as shown by the meter; but the number of ma. by no means corresponds with the intensity of the burning; very little current passes, in fact, when the pain is greatest. This pain of the "galvanic brush" is usually described as due to the concentrated action of the minute current quantities upon the most superficial and sensitive nerve filaments; but doubtless the real reason is the microscopic spark-leaps through the cuticle incidental to this mode of current transmission.

EXP. 6. *Effect produced on the current volume by salt water on the electrodes.*—Set the controller at a given place and leave it there (or use the full strength of a certain number of cells), and note the number of ma. passing through the hand when both wet electrodes are pressed upon opposite sides; leaving the battery strength undisturbed, remove the electrodes and saturate them with salt water. When they are replaced, a considerable increase in the number of ma. passing through the hand will be found. The sensations will be still more acutely increased.

Saturated salt water is about three thousand times a better conductor than distilled water; hence the use of salted

water on electrodes increases the current by lessening the resistance offered by the "liquid joint" at the points of entrance into and egress from the body. It is of great service when the battery power is deficient or accidentally low; but its constant use is inadvisable, owing to the disproportionate increase of pain produced by it and the bad effect upon the electrodes, which are quickly oxidized. The excess of pain is doubtless due to the products of the electrolysis of the chloride of sodium.

[TO BE CONTINUED.]

ORIGINAL COMMUNICATIONS.

PELVIC CELLULITIS.

BY M. L. HALBERT, M.D.

Cincinnati, N. Y.

PELVIC Cellulitis is an inflammation, acute or chronic, affecting the connective tissue within the pelvis beneath the peritoneum; usually located close to the uterus and between the layers of the broad ligaments, but also in other localities where connective tissue abounds. It begins, as phlegmonous inflammations usually do, with chills, fever and pain in the pelvic region. There is a great range in the severity of the symptoms and in the character of the pain. Where there is no peritonitis present, the pain is of a heavy, aching character, usually greater in one iliac region, more often in the left. There is generally considerable irritation of the bladder with constant desire to micturate. The pain often extends down the thigh and limb on the side affected, and causes the limb to be flexed upon the abdomen. If the disease go on to suppuration, we have in addition the symptoms accompanying the formation of pus, such as rigors, throbbing pain and the disturbance caused by pressure of the effusion and displacements of the uterus or the ovaries; such as difficulty and pain in voiding the contents of the bladder and rectum, cramps in the limbs, etc.

The disease is usually (some say always) complicated with more or less peritonitis, or disease of the uterus or its appendages; hence we have more or less disturbance occasioned by disease of these structures. Peritonitis occa-

sions the severe lancinating pains, nausea and vomiting and tympanites. I believe that a case of uncomplicated cellulitis may go on to the formation of a large abscess, with but few of the symptoms usually accompanying such conditions. My own experience in one case convinced me of this.

A vaginal examination during the first stage of the disease reveals a marked increase in the local temperature; tenderness, more or less extensive in some part of the vaginal vault, throbbing of the arteries, etc. A little later a boggy condition is noticed, and if the effusion be extensive enough, the uterus will be found fixed by the pelvic roof. Later we find a rather firm and perhaps irregular swelling, tender to the touch, of variable size and location, usually in one of the broad ligaments. This is generally located at the side of or behind the uterus; very rarely in front, and displaces that organ more or less, according to the size of the exudation. If pus form, which is not always the case, we have a pelvic abscess, which frequently proves to be a very chronic, intractable disease to treat, and a condition necessitating severe surgical procedures.

Pelvic cellulitis is usually caused by the absorption of septic material after child-birth, abortion and operations upon the perineum, vagina and uterus, or by extension of existing disease of the uterus, ovaries or tubes; or it may arise idiopathically from cold during menstruation, and from causes that produce inflammation in other locations.

The duration of the disease is very uncertain. It may be arrested in the stage of congestion before exudation has actually occurred. Exudation may take place and be absorbed almost completely without the formation of pus, or a large abscess may be formed. The abscess formed usually opens into the vagina or rectum, but may reach the surface in various other places. It may rupture into the peritoneum; but this, happily, is the least common termination. The disease may last from two or three weeks to years. Resolution of inflammatory product is a slow process, and rarely leaves a person without indurations in the pelvic tissue or displacement of some organ.

The *diagnosis* presents difficulties, as we all know. Peritonitis to a greater or less degree so often coexists, that we may make the diagnosis of pelvic inflammation, *probably* cellutitic, and as it does not affect our treatment of the case in the early stages, this does not make much difference to us as practitioners, except that we all wish to know what form of disease we have to treat, as soon as possible after we take charge of a case. In peritonitis the pain is likely to be sudden, sharp, agonizing and more general within the pelvis, pulse and temperature higher, more tympany and greater tenderness of the abdomen. The patient draws up both legs in peritonitis, and but one in cellulitis. In peritonitis the exudation is not always felt, and if it be, it is usually higher and more general. Hæmatocele is sudden in its onset, with symptoms of loss of blood; it is soft at first, then hardens; while in pelvic cellulitis the exudation is hard at first and then softens from suppuration. Hæmatocele is generally post-uterine, distending Douglas' cul-de-sac, crowding the uterus forward toward the symphysis pubis, while we commonly find the tumor on one side in cellulitis.

Fibroid tumor is not accompanied by acute symptoms, and is not sensitive to touch. The tumor resulting from extra-uterine pregnancy sometimes closely resembles a cellutitic exudation in its locality, characteristics and many of the symptoms connected with its growth, but the presence of some of the ordinary signs of pregnancy would soon indicate the character of the growth. Within the year, I had a case of cellulitis accompanying or causing an abortion at two or three months, which, if the statement of the patient could be believed, closely resembled in nearly all its symptoms a case of tubal pregnancy; and in fact I thought it was a case of that nature. The patient thought herself pregnant two or three months; was seized with symptoms of abortion, such as pain, slight hemorrhage, etc. Rest and opiates did not relieve her. She continued in this condition for some days, but not ill enough to give up and remain in bed, having a little fever all the time. I made a vaginal examination, and greatly to my sur-

prise, found a smooth, elastic tumor at the left and partly behind the uterus, somewhat tender to the touch, with pulsating vessels in the vaginal walls near the tumor. The uterus was displaced to the right, and I afterwards found contained the remnants of a placenta. These conditions taken together seemed to indicate very clearly, I thought, a case of tubal pregnancy, but I was mistaken, for within a few days the abscess ruptured into the rectum and discharged a large quantity of pus. It was surprising to me that so large a collection of pus could be formed with so small an amount of constitutional disturbance. "Uncomplicated and sub-acute cases of cellulitis sometimes run the course of the disease to the formation of a large abscess, without causing any particular disturbance," says Emmet; and in this case there was no more trouble than we should expect from an abortion at that period.

If the patient be seen early, in the acute form, during the stage of congestion, the treatment should be prompt and thorough, with the object of arresting the disease before exudation has taken place. The patient should be put to bed and brought under the full influence of opiates, and kept there until the desired result is attained or exudation has taken place. Absolute and continuous *rest* is the great principle to be maintained in the treatment of this as well as most other inflammations during their first stage; and I know of no agent so well adapted to meet the indications as opium in some form. Hot water by vaginal irrigation should be used persistently. Emmet says "it is the *only* means we possess for aborting an attack of cellulitis, which it will do if thoroughly employed at the beginning;" but the physician must attend to this himself in order to have it done properly and efficiently. Heat should also be applied to the hypogastrium. I prefer the plan of using flannels heated by steam in an ordinary cooking steamer. In this way they can be applied as hot as the patient can bear, and are not moist enough to wet the clothing of the patient.

If our patient improve under this treatment, we *hope* we have aborted an attack of pelvic inflammation; but can-

not be sure, as the disease can hardly be said to exist till the stage of exudation is reached. If exudation take place, which I suppose is the more usual occurrence, the same principle of treatment is to be pursued during the stage of effusion; relief of pain by opiates, rest, local application of heat, now to be combined with counter-irritation by means of iodine and turpentine. I have found the use of glycerine tampons in the vagina relieve patients from the pain caused by pressure of the exudation, and also aid in the absorption of the effusion by the exosmosis which the glycerine produces. The vaginal irrigations with hot water, with perhaps the addition of salt, should be used thoroughly and persistently. Besides the local effect it materially assists in quieting nervous irritations and producing sleep. The diet of the patient should be carefully attended to, as the disease is liable to last for weeks or months if suppuration occurs, and the strength should be kept up by food of the most nutritious character.

The disease may now terminate by re-absorption of the effusion, or what is more likely, the disease pursues its natural course and suppuration takes place, indicated by rigors and rise of temperature, and we have pelvic abscess to treat.

Latterly, interest has been more centered in the treatment of the disease when it has advanced to this stage, and much discussion has taken place in regard to the surgical means of treating the condition. The same principle should guide us in the management of pelvic abscess that we would apply in the treatment of an abscess in another part of the body. I believe it is a settled law of surgery that when pus has formed it should be evacuated as soon as possible, if it can be reached without danger to important structures. If left to nature there is danger of the pus burrowing and destroying much tissue, and also of septic infection. A strong reason for early evacuation of the pus is the danger that the disease may become chronic, or constitutional breaking down occur.

When possible, the abscess should be opened through the vagina, because the opening would then be at the most de-

pendent portion and afford the best chance for proper drainage. This could not be so well accomplished if the opening were in the rectum, though if left to nature the discharge occurs here about as frequently as into the vagina. If the abscess be high up, the opening may be made through the abdominal wall. An anæsthetic should be given for the opening of pelvic abscess, and if early in the case, the aspirator should be used; but if there be septic symptoms, the case has become chronic, a free incision should be made, a drainage tube introduced and the cavity be washed out with an antiseptic fluid. The opening should be kept patulous till the cavity has healed from the bottom. Where the abscess is deeply seated and cannot be safely reached from the vagina, it may be necessary to resort to abdominal section, an operation I am not inclined to discuss in this paper.

RODENT ULCER, EPITHELIOMA AND LUPUS IN THE SAME PATIENT.*

BY B. MERRILL RICKETTS, M.D.,

Cincinnati.

THE patient was a woman aged sixty-five years, who had been an invalid the most of her life, having suffered with carious degeneration of the spine at ten years of age, which resulted in posterior curvature. She presents a more rare combination of unique cases than is often the privilege of the Academy to hear.

Eighteen years ago she noticed a small, thin, almost transparent scale, forming upon the arch of the nose in the median line. This was at first no longer than the head of a pin, but increased in size and at the same time extended deeper into the integument. The edges of the scale finally took on a turned up appearance, while the centre was more firmly adherent, and on removal caused a slight exudation of serous matter which became incrustated and much more elevated. At this period the removal of the crust was followed by slight capillary hemorrhage.

* Read at the meeting of the Cincinnati Academy of Medicine. [Abstract.]

In the course of eighteen years it reached the size of a five cent piece, and was seldom accompanied by itching and never by pain. At the time she was first seen by the reporter, about one year ago, he found extensive incrustation and the ulceration extended through the integument into the cellular tissue. On removing the crust considerable bleeding occurred from the soft, highly congested, granular surface. This was easily controlled by pressure with the finger. The diagnosis was rodent ulcer.

There was also found a red lesion about three square inches in size, and situated on the left cheek on the angle of the inferior maxilla, slightly involving the lobe of the ear. It was covered with fine scales and at times moisture. She said it had begun nine years previously, first as a small reddened patch similar to eczema. It almost disappeared at times, but finally reappeared in an aggravated form. It secreted an irritating and sticky secretion which irritated the surrounding skin. Her sleep and rest were greatly interfered with.

The diagnosis was erythematous lupus, and it was treated accordingly.

In addition to all this there was found a papillomatous epithelioma on the right side of the neck. This was about the size of a wren's egg, and became very much inflamed, causing a congested condition of the surrounding skin to the extent of a half inch. This condition had developed at the base of an ordinary wart which had existed for a long time, and began to cause trouble about seven months ago. This was the most alarming part of the trouble, as her temperature was 100° and the submaxillary and the sublingual glands were greatly enlarged on that side. Her physical condition did not warrant any surgical interference of an extensive nature at this time, yet the case demanded immediate action.

The operator accordingly first removed the lesion upon the nose, carrying the incision as far as possible beyond the indurated skin. He curetted thoroughly and drew the edges together as closely as possible, leaving about one-third of the surface to heal by granulation. The coapted edges healed by first intention, and the remaining tissue healed rapidly.

On the day after his operation he removed the papilloma of the neck with the knife, by removing the skin to the extent of one and one-half by two inches. After scraping the edges thoroughly, he stitched the edges of the integument together as well as possible, but union by first intention did not occur and granulation followed.

About four weeks after the operation, the affected glands having returned to their normal size, the erythematous lupus was subjected to a course of the ordinary remedies: carbolic, chromic, nitric and salicylic acid. Pure carbolic acid did relieve the scaliness and redness to a considerable degree, also a very annoying itching. This treatment was by far the most satisfactory, but still the disease persisted. Lunar caustic was found necessary to bring the elevated surfaces to a level with the rest. A paste of white arsenic and cinabar was next tried and allowed to remain on for five days, then removed and poultices applied to hasten sloughing. This was very satisfactory, and a line of demarcation formed and the entire diseased skin sloughed, leaving a raw surface whose edges were as sharp and distinct almost as if cut by a knife.

The process of repair was now rapid and satisfactory, with the exception of one point about the size of a silver half dime, which owing to the warm weather was not removed till fall.

There was a slight return of the disease on the nose the following summer. A small crust about the size of a pea formed. This was excised with the knife, and the surface well scraped and left to heal by granulation.

During the first three months which she was under his care, he gave her one-twentieth of a grain of the iodide of arsenic in conjunction with ten grains of the iodide of potassium after each meal in an excess of water. Her condition became better in a few days and continued to improve.

In her letter dated February 6, 1888, she says that her nose and neck are entirely well, and that there is a minute scale upon the cheek which remains of one size and does not cause her any trouble. Her present condition is by far better and more favorable than had been expected, and while there is a pos-

sibility of either one or all of the diseases recurring to such an extent as to destroy life, he does not think it is probable. In case they do recur, a removal can be effected without pain and as often as is necessary. He thought that we, as physicians, are not justified in allowing these patients to suffer so long and severely without relief, when we can give it so easily and with so little pain.

This patient was led, innocently or otherwise, to believe that her multiple trouble was harmless and easy to treat, and thus lead on through years of suffering with a rodent ulcer; eight years and one-half with a rodent ulcer and erythematous lupus; and for almost one year with a rodent ulcer, erythematous lupus and papillomatous epithelioma, making in all about twenty-eight years of actual suffering, which need not have been had the proper course been pursued.

Because the wart on the nose or the mole upon the back appear harmless and inoffensive, we are not warranted in allowing it to remain or pass the plea for relief unnoticed. Owing to the superstition and fear of the laity, the treatment of disease of a malignant tendency is not pleasant or the result as a rule satisfactory. It is said that about thirty-five per cent. of malignant diseases are cured under the present circumstances. This being so, how much this proportion could be increased if the operations were made earlier in their course.

While the percentage of recoveries is greater to-day than fifty years ago, he thought that it is not due alone to improved management and treatment, but that operating early in the course of the disease has been a prominent factor in increasing the number of recoveries.

HOSPITAL NOTES.

MEDICO-CHIRURGICAL HOSPITAL—ORAL CLINICAL SERVICE OF PROF. J. E. GARRETSON. REMOVAL OF RIGHT SUPERIOR MAXILLARY BONE FOR SARCOMA; USE OF SURGICAL ENGINE. Reported by M. H. Cryer, M.D., Chief Assistant. The case having been fully examined, it was decided that his only chance lay in ablation of the jaw. Dr. Garretson performed his

own operation, which, in this particular instance, was attended with a very limited loss of blood and almost entire absence of shock.

The operation was as follows: The patient is etherized to an extent denominated by the lecturer as "standing at the middle of the bridge of Varolius." This, while insuring entire absence of pain, guards against the possibility of blood being taken into the larynx, the medulla oblongata being affected only below the uncrossed side of the bridge. The lip is then divided down the median line and the coronary arteries tied. Next an incision is carried across the lip at its junction with the ala, when, the side of the nose being reached, the cut is extended to the middle of the nasal process. A succeeding step dissects the ala from the nasal boundary so as to expose the osseous nasal opening. Following this an incision is made outwardly to the position of the malar bone, the cut being parallel with the orbital boundary and between it and the infra-orbital foramen. At this point the facial artery and other bleeding vessels are ligatured, the parts being at the same time dried and freely washed with phenol-sodique. A patient during this last performance is allowed to partially recover from the anæsthetic effect with a view to preparation for a profounder effect quickly to follow.

At this point the particular operation as practised by Dr. Garretson begins. If a disease be of a character, as in the instance under consideration, which requires the removal of all enveloping structure as well as of the maxilla itself, a circular saw is employed and the bone sections made in the situation commonly cut or crushed through with the old fashioned shear-forceps, an exception being the nasal process, where the orbit is left in every way entirely undisturbed, the circular saw making a clean and most delicate cut along the parallel line, described above as having been cut midway of the orbital boundary and infra-orbital foramen. The division at the inter-maxillary suture, extending through the alveolar process in front and through the palatal processes behind as far back as the palate bone, is the work of a single moment, the saw having a velocity of not less than

seven thousand revolutions to a minute.

In dividing the maxillo-malar articulation, Dr. Garretson has a skull held at his side, being most particular to pass through the exact line of the suture.

The bone sections completed, a few moments rest is given, when anæsthesia, which ventures as far over the pons as may judiciously be risked, is produced.

From this moment hurry is the indication. Taking up a knife, a cut which begins at the junction of the palate processes of the palate bones is made along the line of the palato-maxillary suture, being continued between the maxillary tuberosity and the hamular process of the sphenoid bone, and from this point sweeping posteriorly and upwardly through the zygomatic fossa into the speno-maxillary fissure. The bleeding here is necessarily profuse, and is not in any way subject to control until the jaw is removed. Just here is the danger to the patient from strangulation, an accident which German surgery guards against by a preliminary tracheotomy, but which at this clinic is mastered by a handling of the anæsthetic which makes a sentinel of an unanæsthetized respiratory centre. Not an instant of time is lost. The lion forceps are applied and the freed bone is wrenched from its socket. If a moment back, hemorrhage was profuse, it is now found increased many fold, arteries—jets seeming to spurt from every point. It is the case, however, as remarked by the operator, that the complexity is resolved into a reasonable simplicity by remembering that it is the branches of the internal maxillary which are giving the trouble, and that if the main vessel be ligatured the others are practically occluded along with it. In the case under treatment a demonstration was made, for while, to the unfamiliar eye, it seemed that the patient was in danger of bleeding to death in a few minutes; yet a ligature put about the single vessel named controlled the hemorrhage at once.

Packing the wound with strips of patent-lint saturated with phenol, arranged so as easily to be withdrawn through the mouth, and closing the face wound by means of sutures and pins completed the operation.

The patient when lifted from the table seemed almost free from the effects of shock.

A second manner of removing the maxillary bone as practised by Dr. Garretson, and one which is done without external wound, or even particular disturbance of the oral cavity, consists in the use of a rapidly revolving bur used through a trap opened in the canine fossa. No hemorrhage associates with the performance, nor has the reporter ever witnessed any but happy results. It is not the case, however, that external face cuts are the bad things represented, as reasonable care insures union so immediate as to leave little perceptible scar; this is certainly a result secured in the service being reported. The jaw, after this manner of operating, is simply cut, as it were, from its envelope.

SECTION OF THE SUPERIOR MAXILLARY NERVE IN THE SPENO-MAXILLARY FISSURE.—The patient in this instance, a great sufferer of many years' standing, is a graduate of the dental school and now engaged in the practice of his profession at Frankford.

Anæsthesia being secured, a triangular flap was raised so as freely to expose the face of the jaw. From this flap the infra-orbital continuation of the nerve to be removed was dissected out, and being caught in a bull-dog forceps so as to be controlled, the anterior boundary of the antrum was burred away, this burring being continued along the roof of the sinus so as to expose and drop the nerve. Next the floor of the orbit was cut away, the continuity of the nerve being carefully maintained. A final step consisted in burring out the anterior boundary of the speno-maxillary fissure and in cutting the nerve at the seat of the foramen rotundum.

In replacing the flap in the case here described, no pins or stitches were used. Union was immediate. The patient dressed himself and walked about the corridors of the hospital on the fourth day after the operation. No pus formed inside or out, the case in this respect being remarkable. The patient seems to be fully cured of his neuralgia, and expresses himself as having come

to an understanding of the meaning of a heaven on earth.

EPITHELIOMA OF RIGHT NASAL ALA.—The patient a professional gentleman from Washington, D. C., aged sixty. Disease of four years' standing. Many attempts and as many failures made on the part of different practitioners to cure the lesion, resulted in an operation recommended and practised by Dr. Garretson as a specific.

The gentleman being etherized, the soft parts covering the cartilage were thoroughly removed, a large margin being allowed. Next a flap of corresponding size was dissected out of the cheek, the pedicle being related with the ascending line of the facial artery. This flap was shifted to occupy the space left by the removed part, and was delicately stitched into place. Finally, the wound in the cheek was so completely obliterated by means of interrupted stitches as to be scarcely observable. Maintained that, wherever the operation is practicable, a healthy flap, made to occupy and to grow in the place of a removed cancerous sore, will prove the cure of the disease. Common skin grafting, the grafts being taken from healthy persons, is placed next as proper treatment. Epiderm taken from horses and secured after a cleanly manner is recommended to be used where circumstances conflict with the first described modes of treatment.

PENNSYLVANIA HOSPITAL.—Hunt presented a patient, part of whose inferior maxilla had been removed by Morton some weeks previously, for necrosis. The patient is an Italian coal-miner, who contracted phosphorus poisoning by carrying matches in his mouth. The case is doing well, and new bone is rapidly forming in the remaining periosteum.

LACERATION OF HAND.—A man presented himself whose hand had been extensively lacerated by being caught in a machine. The wrist joint was laid open, the tendons torn, but some motion was still possible. Hunt decided that an effort should be made to save the hand; and an antiseptic dressing and irrigation were ordered.

DIPHTHERIA.—Longstreth presented a case of diphtheria with exudation upon the right tonsil, swollen uvula and dysphagia. The nasal mucous membrane was so swollen that breathing through the nostrils was impossible. Turpentine stupes were applied to the neck, a four per cent. solution of cocaine to the diseased tonsil, and the throat was sprayed with bicarbonate of soda and borax. He never uses the swab, considering it likely to irritate the inflamed parts. Internally he prescribed quinine and iron.

PUERPERAL PERITONITIS.—In this case Longstreth ordered an emulsion of turpentine with vinegar and yolk of eggs to be spread on thin cotton cloth and applied to the abdomen, and retained until the burning is severe. It is then removed, but reapplied as soon as the burning ceases. Internally he ordered opium and quinine.

The diarrhœa subsided, the tongue cleaned, the respiration dropped from 40 to 23, and the general condition showed improvement. To prevent adhesion of the peritoneum, the lecturer advised the local use of iodine or mercurial ointment. This patient died two days later with pericardial effusion.

MILIARY TUBERCLE.—Longstreth showed his class a patient who, when admitted to the hospital, had a temperature of 104.8°, diarrhœa, dry skin, bluish lips, distended abdomen, short, shallow respiration, but no tympanites. Two days later delirium set in with dry tongue and cough with scanty sputa, which contained some yellow elastic fibres. Auscultation detected fine râles, generally diffused, and percussion gave a high pitched note. The case was treated symptomatically. The temperature fell to 95°, and the pulse to 66. Turpentine was applied to the abdomen, back and chest successively. For the diarrhœa he gave bismuth, gr. xx, every hour, with acetate of lead in solution and opium in suppository. The patient is improving.

A VIRGINIAN entered the Medico-Chirurgical Hospital to be treated for epilepsy. Bromide of potassium succeeded in restraining the convulsions but had no effect upon the petit mal.

This appeared in the form of spasms, commencing back of the left ear and extending forward to the left eye. The veins leading from the outer corner of the eye were curiously enlarged. Acne of the suppurative type was quickly produced by the bromide. To prevent this the bromide of arsenic was added in full doses. Antipyrine, in doses of three grains every four hours, at once diminished the seizures of petit mal from ten (daily) to two. The case was under the care of Waugh.

RADICAL CURE OF HERNIA.—Garretson, with a view of demonstrating that comparatively few and simple instruments are needed in the practice of surgery, performed at his general clinic a few days back Agnew's operation of invaginating the scrotum and sewing it into the internal inguinal ring for the radical cure of hernia, using for the purpose an ordinary bivalve ear speculum and two grooved directors. To Dr. Garretson belongs the credit of being the first to do this operation, he happening to have a peculiarly favorable case immediately following the devising of the means by Professor Agnew, the instruments being loaned him by this gentleman, who as well assisted at the operation. This first operation was made some twenty years back, and the cure remained complete when the patient was last seen, ten years later.

In cases of fatty heart where the effects of digitalis are desired, but where that drug is inadmissible, the fluid extract or tincture of cimicifuga may be used with advantage.

A patient was brought to the Medico-Chirurgical Hospital, suffering from a rupture of the urethra, the result of a violent attempt to urinate through a narrow stricture. When he was admitted, the scrotum as well as the adjoining parts was enormously infiltrated with urine, and all somewhat gangrenous. On account of the stricture, a staff could not be introduced, so that Goodman performed perineal section in the median line, without that aid. A catheter was introduced into the bladder and the scrotum freely incised. The man is doing well.

PHILADELPHIA HOSPITAL—PLEURISY.—In speaking of pleurisy, Henry said that he considered the fingers by far the best instruments for percussion, since the sense of touch is, in many instances, almost as valuable an aid as the sense of sound. He exhibited a case of hemorrhagic pleurisy of the left side, and aspirated about thirty ounces of the effusion. He would not remove more than one-half the effusion, because the patient was old. In such cases he thought frequent tapplings advisable, rather than taking all away at one time.

UNUNITED FRACTURES—ULCERS.—Ununit fractures of the lower jaw are generally caused, says Hearn, by the presence of a tooth at the point of fracture. He has never seen a case in which the removal of the disturbing tooth was not followed by immediate union. He showed two cases of ulcer of the leg, much denuded of skin—one completely around the leg—which he was covering by skin grafting. Small bits of epithelium, snipped from the living skin, are pressed here and there on the raw surface, where they quickly grow and spread in every direction.

ADMINISTRATION OF IODIDES.—Where the stomach refuses to accept ordinary doses of iodide of potash, Hearn advised beginning with one grain doses. Keep this up for a few days; then increase to two grains; and so on till the stomach can be trained to take from 18 to 20 grains three times a day.

MEDICO-CHIRURGICAL HOSPITAL.—*Impetigo contagiosa* is a highly contagious parasitic disease, marked by discrete pustules appearing on the face especially, and spreading to the conjunctiva and also to the mucous membrane of the nares, causing much dyspnoea. For a case at his clinic Shoemaker prescribed:

R	Hydrargyri oxidi flavi.....	gr. iij
	Pulveris marante.....	3 ss
	Plumbi carbonatis.....	gr. xv
	Unguenti aquæ rosæ.....	℥ j M.

Apply locally.

He also gave a tonic.

A ready way of detecting albumen in the urine, according to Woodbury, is to fill a 4 or 6 oz. narrow necked bottle with urine. Pour out the urine

and refill the bottle with water. Now quickly invert the bottle and allow the water to run out. If large air bubbles fill the bottle, albumen is likely to be present.

As a local application in diphtheria, Stewart prefers Monsel's solution, used in strength sufficient to prevent the reproduction—pure, if necessary. He has not lost a case of diphtheria in an adult since he began this treatment.

In chorea, Waugh gets better, results from *cimicifuga* than from any other medicament. He says that the tincture of the shops cannot be depended on; so he makes a fresh infusion, \mathfrak{zj} to the pint. Of this he gives a tablespoonful three times a day, gradually increasing the dose to an ounce, if possible.

TRANSLATIONS.

THE MICROBE OF WHOOPING-COUGH.—Prof. Aphanassieff describes (*Vratch*) a specific bacillus in the expectoration of infants suffering with whooping-cough, which he considers peculiar to the disease. Culture experiments, with inoculation of animals, led to the production of a pathological state very analogous to pertussis. The microbe can always be found in the bronchial and laryngeal mucous membrane in animals which had succumbed to the injury.

BOILED WATER AS AN ASEPTIC.—Microbian cultures flourish in the most concentrated solutions of carbolic acid; and this is also true of sublimate solutions actually as strong as usually recommended.

The accidents occasioned by corrosive sublimate, by carbolic acid, and even by iodoform, are so frequent and so well known in the meantime, that one cannot too warmly urge upon surgeons the use of simple water, which, after filtration and boiling, at 100° , or better at 120° , if one has the proper apparatus, is certainly the best aseptic we have at our disposition.

While solutions of hydro-chlorate of morphine for hypodermic use, made according to the old method, with distilled water, are full of micro-organisms and of microbes at the end of five to ten

days of use, they are preserved pure and perfectly limpid during weeks or even months, if water be employed which has been filtered and boiled.—*Gazette de Gynécologie*.

RELAPSE FROM MEASLES.—In the same family two children were seized with measles. The eldest presented all the classical signs of the affection; oculo-nasal catarrh, morbillous bronchitis and the characteristic eruption. During his convalescence the younger brother was taken in his turn, and had entered upon *his* convalescence when the elder was seized anew, fifteen days after the first attack, with a new one, attended by the same symptoms.—*La Normandie Méd.*

TREATMENT FOR DIPHThERIA.—Dr. Moure, of Paris, recommends the following:

If the case is a grave one, cauterize with pure phenic acid; but if not so serious, with a solution of phenic acid and glycerine; the application to be made twice daily.

Every two to three hours insufflation of hot water to dissolve the false membranes; after which spray the throat with a solution of lactic acid and lemon juice.

If there is an accumulation of false membrane in the back of the fauces, use an emetic. If the larynx and the trachea become affected, give a potion of Guttman's pilocarpine with a tablespoonful of Malaga wine; or a subcutaneous injection of pilocarpine. Friction on the chest with camphor-pomade.

Internally, give every two hours a tablespoonful of the following:

Lemon juice.....	100	grammes ($\mathfrak{z}\text{ijss}$)
Sulphate of soda..	3	" (gr. xlv)
Chloride of sodium.	3	" (gr. xlv)
Honey.....	20	" ($\mathfrak{z}\text{v}$)
Ext. of cinchona...	2	" ($\mathfrak{z}\text{ss}$)
Phenate of soda...	1-2	" (gr. xv-xxx)

Evaporate in the chamber Renon's solution, as follows:

Acid. phenic.....	5	grammes (gr. lxxv)
Acid. benzoic.....	2	" (gr. xxx)
Acid. salicylic....	1	" (gr. xv)
Alcohol. rectific....	40	" ($\mathfrak{z}\text{ssss}$)
Aquæ.....	2	litres.... (2 quarts)

— *Revue Mensuelle de Laryngologie d'Otologie, et de Rhinologie*.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, APRIL 2, 1888.

EDITORIAL.

FIFTY THOUSAND DOLLARS
FOR CHARITY.

THE announcement was made in one of our leading daily journals some weeks since that a gentleman contemplated giving the above sum in charity, and desired advice as to the best method of disposing of it. Several interesting points were developed by this singular request. One of the first was the large amount of good advice to be had for the asking, and the multitudinous character of the man who knows just how this sum should be expended so as to accomplish the most good. The unanimity with which each recommended the charity in which he happened to be specially interested, reminds one of the ten Grecian generals, each of whom voted for himself as commander-in-chief, and for Themistocles as second. In fact, it might be worth while to poll the physicians and managers of all our hospitals for their *second* choice.

But this discussion has served a more useful purpose in calling attention to the number of worthy charities in this city and to the practically unlimited opportunities for doing good. Few of those into whose hands the Directory of the City Mission has not fallen are aware of the work already under way. There are many deserving charities, the results of thoughtful consideration of the woes of humanity, which humbly do their part in alleviating a little of the great mass of human suffering, though scarcely a percentage of our citizens are aware of the existence of such institutions. Take the Home for Aged Couples, for instance. What can be more

beautiful than the idea of a refuge for the aged, where they can sit out the remainder of their days in peace, hand in hand, when life's storms have left them stranded on the beach of poverty?

It may be questioned whether such a sum would be better expended in comforts for the declining years or in fitting the young for the active duties of life; or, yet, in providing for those accidental and unforeseen hardships which interrupt the even current of life with unmerited misery.

It has been usually the fashion in Philadelphia to start *new* charities, rather than to build up those already under way. The Wills' Eye Hospital, the Preston Retreat or the Burd Orphan Asylum, have little chance of receiving legacies to perpetuate the name of the original founder. He who devotes a fortune to charity has a right to so bestow his means as to perpetuate his own name.

If the prospective donor wishes to aid an institution already in existence, we would suggest that he give his money to that whose charity is most freely bestowed, with the least restriction; where the greatest amount of good is done with the means already at its disposal. Hospitals which take no poor, which are limited in their scope, or which are already amply endowed, may give place to more actively useful and necessary charities.

But if it be the desire to found a new institution, there is one which we think is sadly needed. We will admit without argument that it is undeserved, but we feel the deepest pity for the inebriate. The harm he does is incalculable. He drags down his innocent family into the gulf with him. He perpetuates his surrender to Kama and hands it down as an inheritance, even to the third and the fourth generation, in the "interchangeable neuroses."

It must be confessed that society has as yet accomplished but little in the management of these cases. The inebriate is not insane, and yet he is dominated by a power which is beyond his own control. He is not amenable to law unless he commits some infraction of the code. The law looks with jealousy upon any restraint of his personal liberty, and consequently the drunkard is allowed to debase himself, waste his property and beggar his family without interference.

It is true there are a few institutions alleged to be for the cure of inebriety, but the results of treatment in them are by no means satisfactory. The inebriate is treated like a guest in a summer hotel. He is well fed, comfortably lodged, and the resources of the establishment are taxed to keep his highness amused. After a year of this *dolce far niente* life, he goes back to the friends who have been laboring to support him. He returns to take up the burdens of life, to meet the consequences of his former folly, with will-power enervated by a year of idleness and dependence on others. With that ingrained selfishness characteristic of the disease, he finds it preferable to relapse into drunkenness and transfer the responsibility to his friends. "If they had treated me as the Home did, this wouldn't have happened," is the excuse ready, and by iteration he learns to believe it a sufficient one.

For the poorer wretch there is not even this retreat, and the House of Correction alone affords a place of detention for him. Here he is herded with tramps, petty thieves and criminals of the most contemptible classes. It is a matter of common observation that a man confined in the House of Correction for drunkenness, comes out far worse than he went in. The association with criminals is not so bad as

the palpable fall from the plane of respectability, which sweeps away one of the strongest barriers to unbridled indulgence.

For the inebriate, then, we may say without fear of contradiction, that no adequate means of treatment have as yet been devised. The State provides for her deaf-mutes, her blind, her idiots and her insane. There are jails for the wicked, hospitals for the sick, almshouses for the poor, but no suitable place for the drunkard, though the need is great. It is unnecessary to demonstrate the value such an institution would possess were it conducted upon the proper plan.

The legal difficulties, the erection of safe-guards about the personal liberty of the citizen, are not more complex than those pertaining to mad houses.

Such an institution should be in the country, away from the temptations and from the excitement of a great city. Country life and rural pursuits are best suited to these cases. It should emphatically be a work-house, where the inmates must earn their bread before they eat it; and, if possible, should contribute to the support of their families at the same time. The chief of the establishment must be a physician, and every inmate should be looked upon as a case of disease, to be treated and managed as any other nervous affection would be, with reference to its cure. There would be no lack of suitable patients for such a hospital; and if its success were demonstrated, the State could easily be induced to follow up the experiment. Thus, the good effects would far exceed those directly due to the sum originally expended.

There are many tracts of wild land in the mountainous parts of Pennsylvania or of West Virginia which could be purchased for a trifle, and where the necessary seclusion could be secured.

W. F. W.

MEDICAL ADVERTISING IN RELIGIOUS NEWSPAPERS.

THE medical journals occasionally are (quite needlessly, according to our minds) exercised upon the subject of popular medical advertisements appearing in the columns of more or less religious newspapers. The "moral turpentine," displayed by the latter in continuing to publish the marvelous virtues of nostrums and to actually take money for the same and wax fat and prosperous, whereas it is a well-known fact that many orthodox medical journals lead a lean and hungry existence, is incomprehensible to the editorial mind and *ergo* doubly reprehensible. A couple of years ago the *Medical Record* pointed a moral to its religious contemporaries, and threshed out this subject until nothing was left but chaff. In spite of its plain and logical deductions and friendly advice—none the less valuable because unsolicited and entirely gratuitous—no sooner was the sermon over than, like the fish that St. Anthony preached to, they all, with one accord, proceeded to continue doing exactly what they had done heretofore.

It is very evident, if the premises of the medical journals are to be admitted, that the religious periodicals are in a dilemma. Our contemporaries bring the editors and managers of religious papers before the bar of public opinion, charged with hypocrisy, venality, simony and general unfitness for their work, and proceed to try them off hand and sentence them at once, unless they throw themselves on the mercy of the court, and promise never to be guilty of the offence again.

To all this the alleged religious newspaper might reply that the term "quack medicine" is an opprobrious term, designed to prejudice, and prejudice the case; that, if the advertising of nostrums is wicked, then those who

manufacture them are public enemies, and the laws should punish them as malefactors; and that those individuals, religious or not, who are in possession of the facts to substantiate these charges are in duty bound to see that such offenders are prosecuted and duly convicted. In brief, that until medical men are successful in convincing the people that nostrums must not be touched, tasted or handled, there will be an air of Quixotism in tilts at family journals, whether religious or not, that publish what pleases their patrons. If a great New York firm, publishing a first-class medical journal, can afford to publish quack advertisements in the *Popular Science Monthly*, it is not at all a wonder if poor Jack Falstaff should make a lapse occasionally from scientific truth.

The fact is, that in spite of the dictum of the magnate, the public is not an ass, at least it is not such an ass as not to detect and discount a patent medicine advertisement wherever it is encountered. And for those persons who are so simple as to take their medical advice from the advertising columns of a religious journal, why, perhaps, after all, they are in better case than those who take their religious and moral instruction from the medical press. This also is vanity.

F. W.

AGNEW JUBILEE.

PROF. D. HAYES AGNEW, on the sixth of the present month will have completed the fiftieth year of his doctorate in Medicine. The testimonial of a dinner will, on that date, be tendered to the distinguished and widely loved veteran Professor of Surgery, J. M. Da Costa, M.D. L.L.D., is the Chairman of the Committee on the dinner, which will be served in the Foyer of the Academy of Music. A portrait will be painted and deposited in the College of Physicians. On Tuesday, April 24, a Jubilee will be held at the University of Pennsylvania in which all may participate who wish to do so. Subscriptions (\$3 each) to the latter must be sent to the Committee, of which Professor Jas. Tyson is Chairman, not later than April 10, 1888.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE GULSTONIAN LECTURE.—INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND TO PHTHISIS.—RADICAL CURE OF HYDROCELE.—OCCLUSION OF LARGE ARTERIES BY FLAT LIGATURES.—EUTHANASIA, BY DR. MUNK.—PARASITIC FŒTUS.—HERMAPHRODITISM.—HOSPITAL IRREGULARITIES.—SMALL-POX IN SHEFFIELD.—PANDEMIC WAVE-THEORY.

THE Gulstonian lecturer at the Royal College of Physicians this year is Dr. W. Julius Mickle, the medical superintendent of the Grove Hall Asylum at Bow, where the majority of the inmates are men who have become insane while in the army. He has chosen for his subject "Insanity in Relation to Cardiac and Aortic Disease and Phthisis." Dealing first at great length with the physiology of the cerebral circulation, he pointed out that two different views as to the way in which variations in the amount of blood within the closed cavity of the cranium, the capacity of which could never vary, were rendered possible. To the most generally held view—namely, that the cerebro-spinal fluid was the other variable factor—he advanced the objection that there was no apparent provision in the spinal canal for disposing of the cerebro-spinal fluid, which under this theory is supposed to be squeezed out of the cranial cavity when the amount of blood in the vessels of the brain is increased. This is an objection which has never been completely met. Dr. Mickle suggested that it might be explained by assuming that there was an alternation of activity between the brain and spinal cord; and that, with the consequent diminished supply of blood to the cord, space was afforded; while at the same time the large and soft walled veins of the meninges of the cord easily permit an outflow of blood under the pressure of the inundation of cerebro-spinal fluid. The other view is that the changes in the brain circulation are provided for by the venous sinuses of the skull, which act as temporary reservoirs; while at

the same time, when the blood-pressure is increased in the brain, the blood flows with greater freedom through the sinuses and out of the skull. Either theory involves the assumption that the additional space needed by the brain is found by increased outflow from the veins, in the one case of the vertebral canal, and in the other of the cranium. Variations in the rapidity of flow of venous blood from the brain would go a long way towards explaining how an increased supply of arterial blood can be permitted. With increased cerebral activity and increased arterial blood supply, there is a rise of intracranial pressure which must affect the current in the cerebral sinuses, increasing its rapidity in direct proportion to the increase of intracranial pressure; the sinuses, with their rigid walls, acting thus not only as temporary reservoirs, but also as sluices.

Previous writers have stated that where heart disease is a chief factor in the production of insanity, states of exaltation and excitement have been associated with hypertrophy and disease of the aortic valves; whereas depression and melancholia have been associated with dilatation or mitral disease. Dr. Mickle has collected a considerable number of cases observed by him during life, and which he had also been able to examine after death. He has thus brought together the history and post mortem appearances of twenty-nine cases in which disease of the mitral valve either determined insanity or modified the character of pre-existing insanity. In thirteen of these cases the mitral disease was the chief somatic malady and dominated the history of the cases. In the cases where the mitral disease was insufficiency (regurgitation), the mental disturbance had the characters of sombre emotional dejection, or melancholic dread with hallucinations or illusions, or a morose, sullen, taciturn state. Where the mitral disease was stenosis, there was intense querulousness and delusions of persecution, annoyance and injury.

An interesting discussion on the radical cure of hydrocele was raised at the Royal Medical and Chirurgical Society by Mr. Henry Morris, who related two cases of excision of the tunica vagina-

lis followed by recurrence of the hydrocele. It was rather surprising to hear from Mr. Treves that twenty-five per cent. of the cases relapsed, whether the means of "radical cure" adopted were injections of Curling's strong tincture of iodine, incision or excision. He stated that his present practice in relapsing cases was to open the sac and swab it out with nearly pure carbolic acid. Mr. Bryant said that he generally injected two drachms of a mixture of equal parts of the tinctura and the liquor iodi (B. P.), and was careful to empty the sac of all hydrocele-fluid before injection. Sir Joseph Fayrer had found an injection of two drachms of tincture of iodine undiluted cured very nearly all simple hydroceles, and that no other fluid could be used with so much success.

In a paper read before the same society in 1886, Messrs. Ballance and Edmonds advanced evidence to prove that it was unnecessary and inadvisable to rupture the coats of a large artery when applying a ligature in its continuity. Three cases were reported to the Clinical Society at a recent meeting in which this theory, founded on experiments on the lower animals, was successfully applied to man. In one, Mr. J. R. Lunn had thus occluded the superficial femoral artery for popliteal aneurism; kangaroo-tendon was used, and drawn tight round the artery in a clove-hitch without rupturing the coats; pulsation in the tumor was arrested immediately and did not return. The patient, a woman aged 45, made an uninterrupted and perfect recovery, but was kept in bed for seventy-two days. In the second case reported to the meeting, secondary hemorrhage had occurred after amputation at the hip-joint, for sarcoma of the femur. As it was thought that it would have been fatal to the patient to have opened up the flaps to search for the bleeding vessels, and as pressure on the common femoral controlled the hemorrhage, a clove-hitch was put around that artery. No return of hemorrhage took place, and the patient made a good recovery. Mr. Pitts, who performed the operation, justified his departure from established practice by asserting that the old fear of hemorrhage at the seat of liga-

ture was not felt by a surgeon who placed a flat ligature on the vessels and did not divide the coats, but merely closed the lumen of the vessel. The same surgeon related the third case, that of a boy admitted with fracture of the thigh, rupture of the popliteal, and very extensive extravasation. He was almost moribund; but, to give him a chance, the common femoral was occluded by a flat ligature without rupturing the coats. The boy died next day, and at the post-mortem examination it was found that the artery was impervious to water, although the coats were entire.

"Homo liber de nulla re minus quam de morte cogitat." I do not know who is responsible for the Latinity of this sentence; but it embodies a great truth. Even physicians, who are so often brought in contact with death, but seldom give any attention, either in their conversation or their writings, to the management of the closing scene. Perhaps the cheap jokes which are made about death and the doctor have something to do with the prevailing reticence. The joke has never been better brought off perhaps than in the following lines, which will appeal to a good many juniors:

One doctor single, like the sculler plies,
The patient struggles, and by inches dies:
But two physicians, like a pair of oars,
Waft him right smoothly to the Stygian shores.

There is also a Latin version:

Unicus ægrotum dum tractat, remigis instar,
Paulatim medicus desperiisse videt:
Navigio celeri Stygias deferitur ad undas
Cui duo dant medici, dira biremis, opem.

I believe the English version is the original, and the Latin the translation; and this is confirmed by a small but important discrepancy between the English and the Latin. The latter declares that two physicians carry the patient swiftly to the Stygian shores; whereas the English version has "smoothly" where, so far as rhythm goes, "swiftly" would do as well. The English version may therefore be understood in a sense which is not uncomplimentary. Granted that the fatal passage has to be made, the patient who is helped to cross the Styx by two physicians will suffer less pain and discomfort than he who has but one, on the principle that

two heads are better than one. If the lines may be understood in this sense, they convey a lesson as well as a compliment; a lesson which Dr. Munk has set himself to teach in a thin octavo to which he has given the title *Euthanasia*. The subject is a good one for a learned man, such as the ex-Harveian librarian of the College of Physicians is reputed to be, to choose; but truth compels me to say that he has not handled it particularly well. With John Hunter, he "thanks God for opium," and quotes from Dr. Heberden the opinion that, "under the protection of an opiate, the patient's strength has been kept up; and even in hopeless cases, in which the dying person is harassed by unspeakable inquietude, he may be lulled into some composure, and without dying at all sooner, may be enabled to die more easily." He gives a receipt for "ether punch" which is new to me, and may be worth reproducing. It may be written as follows:

- R Spiritus ætheris co. (Hoffmann's anodyne).....3ij
 Acid. sulphurici dil.....ʒxl
 Sacchari alb.....ʒss
 Aquæ menthæ viridis.....ad ʒvj
 M. Ft. mist. Sig. One-fourth for a dose.

Two rather curious cases were brought before the Pathological Society at its last meeting. One was a remarkable example of parasitic foetus. The unfortunate owner of this appendage is a bright looking Hindoo lad aged 17, who is the centre of attraction at a penny show in Tottenham Court Road. The parasite, consisting of upper extremities and shoulder girdle, gluteal region and lower extremities, is attached to the lower part of the right side of the boy's sternum and to the structures below this. The upper parts are freely movable, the lower less so, upon the body of the boy; but neither are capable of spontaneous movement, although sensations are perceived. There is a well formed penis (capable of erection), but no testicles. Occasionally a few drops of urine are passed by the penis of the parasite, which possesses at least one kidney. The other case was an example of hermaphroditism. The child had died after an operation for the radical cure of hernia. The organs of generation presented a curious com-

plex. There was a uterus, Fallopian tubes and vagina, a penis and prostate gland. Two organs, situated just above the Fallopian tubes, were at first taken to be ovaries, but turned out, when examined microscopically by Mr. C. Statham, to be testes. The family history contained other examples of abnormality of the sexual organs. One of the speakers afterwards fell into the error of speaking of this case as an example of a human free-martin. The term, however, is applied to a calf which, with the external organs of the female, is born at a twin-birth with a bull-calf. The true free martin is never fertile, and is, it is said, a hermaphrodite. It is believed that in this case the two calves are derived from the same ovum. More rarely two ova may be fertilized, it is thought, simultaneously; and in that case, if of different sexes, the calf presenting the external marks of the female sex may be a genuine female and fertile. This explanation has at least the virtue of reconciling the conflicting statements of stockmen.

St. John's Hospital for Skin Diseases has lately been a good deal before the public, and not in a very favorable light. Serious charges have been made as to the way in which it is managed, and certain irregularities have been admitted. Three members of the medical staff were summarily dismissed for questioning the managers, who declined to grant an inquiry. This refusal was maintained on appeal to a meeting of the governors, which meeting, it is said, was packed. The Duke of Northumberland and other influential supporters of the hospital have resigned their connection with it, and now the editor of *Truth* (Mr. Labouchere, M. P.) has taken up the controversy; he made some serious allegations and demanded a legal inquiry. After waiting a week, he repeated his challenge on March 1, and hinted that if Mr. St. Vincent Mercier, the secretary, would not take the bull by the horns, the bull would become still more aggressive.

An outbreak of small-pox at Sheffield has attained rather large proportions, and threatens to extend throughout the manufacturing districts of Yorkshire and Lancashire. It must be admitted that Leicester, the great cen-

tre of the anti-vaccinationists, has so far been more successful in excluding small-pox than other towns have been in stamping it out. The system followed in Leicester, however, is very rigid, and would not be tolerated by a people who were not enthusiasts in a cause. Every case of small-pox imported into the town is reported to the health officer and immediately removed to the infectious hospital; and every person who has come in contact with the patient is quarantined and compensated for loss of wages. The system is expensive, it bears hardly on the persons who have been exposed to infection, and it seems almost certain that, sooner or later, it must break down, and the experiences of Montreal will be repeated. Quarantine has also been enforced against small-pox with great success in New South Wales; but there it was combined with vaccination. The object of the Leicester system is to do without vaccination, and I cannot share the indignation expressed by many writers who defend vaccination against anti-vaccination (a terrible waste of labor). The experiment is extremely interesting, and will probably throw light not only on the vexed question of the value of vaccination, but also, and chiefly, on the value of thorough-going quarantine and "sanitary precautions." No doubt the experiment bears hardly on the children born within the last decade; but in the case of no other disease do we attempt to defend children from the consequences of the gross ignorance of their parents. I believe that we shall very soon have an experiment on a still larger scale tried in this country, for it seems to me more than probable that compulsory vaccination will shortly be abolished. The politicians have already begun to count the votes of the anti-vaccinationists, and Mr. Gladstone, our chief machine-politician, has declared that he "keeps his mind open on the subject."

The apparently capricious manner in which epidemics appear, travel for a time in one or more directions, and then disappear; the inexplicable way in which individuals and communities escape, afford some groundwork of fact for the fancies of persons who "keep their minds open." We may, therefore,

feel a certain gratitude to Inspector-General Lawson, an officer of the army medical department on the retired list, who has just given the first course of Milroy lectures at the Royal College of Physicians. His doctrine of "pandemic waves" appears to me a shadow founded on shadows. He supposes that there is some connection between these "pandemic waves" and magnetic force, because he has noticed that the position of these waves from year to year seems approximately defined by lines of equal magnetic dip; but his only ground on which the existence of these waves is assumed is that records of epidemics of "fever" appear to show that they recur at intervals of two years or of some multiple of two years; and that a regular sequence of years of greatest epidemic incidence may be traced in a series of stations scattered over the world from Buenos Ayres and the Cape of Good Hope to Northern Europe and Iceland. In this way he has calculated that a "pandemic wave" takes six years to pass from the Cape of Good Hope to England. The theory was first propounded nearly thirty years ago, but has not been generally adopted by epidemiologists; nor in its present crude form is it likely to gain many adherents. An author who uses the word "fever" as though it were a precise epidemiological term for a single disease, and uses the word, taken in this general and loose sense, for the very groundwork of his theory, repels readers who take a serious interest in epidemiology. This is all the more to be regretted, as attention is now being more and more directed towards those other factors in the production of epidemics which are not contagion. Contagion will not explain all the phenomena, and bacteriologists now attach far more importance than formerly to individual susceptibility. Epidemiologists are ready to take a still wider view, and it would really seem as if so experienced and laborious a physician as Dr. Lawson might have hit upon a useful generalization. It is therefore disappointing to find him harking back to the old and pointless theory. How true is the observation of the great novelist: "It is the nature of an hypothesis, when once a man has con-

ceived it, that it assimilates everything to itself as proper nourishment; and from the first moment of your begetting it, it generally grows the stronger by everything you see, hear, read, or understand.”*

The first step has been taken for preparing to receive the International Congress of Hygiene and Demography in London in 1891. Before separating last year at Vienna, a permanent international committee was appointed to carry on the organization of the Congress. This permanent committee will meet next autumn at Dresden; but it was thought desirable to create an organization in England without delay, as so many interests have to be consulted. A meeting was held recently in London of delegates from the Society of Medical Officers of Health, the Sanitary Institute and the Parker Museum. Sir Douglas Galton, Professor W. H. Corfield and Mr. Shirley Murphy, the English members of the permanent committee, were nominated a sub-committee to open communications with the universities, the medical corporations, and the chief architectural and engineering societies, with the view of obtaining their support.

In describing the virtues of an exclusive milk diet in Bright’s disease, Dr. George Johnson, F.R.S., mentions the case of a gentleman, aged 55, who consulted him for chronic gouty albuminuria, the result of too free living. He was recommended to try an exclusive milk diet, to which he adhered five years, taking a gallon a day skimmed, as the milk yielded by his own cows in the country was so rich that, unless the cream was taken off, he became too fat. His health greatly improved, and he felt well, though a trace of albumen remained. After five years he went back gradually to a mixed diet, and when last heard of, twelve years from the time he was first seen, he was in good health.

It is desired that as many names as possible should be added to the list of the subscribers to the Donders Memorial Fund. Professor Donders has to retire, owing to attaining the age of 70, from his chair of Physiology in the

University of Utrecht, on May 27, 1888, and on that day the memorial is to be presented to him. A committee has been formed in this country by the Ophthalmological and the Physiological Societies to work with the Dutch committee, and subscriptions will be received by Professor Gerald Yeo at King’s College, Strand, London. The fund will be devoted to some object designated by Prof. Donders.

The Pathological Society will devote three evenings in October and November to a discussion of the pathological changes produced by chronic alcoholism, and the exhibition of specimens relating thereto. The discussion will be opened by Dr. J. F. Payne, of St. Thomas’ Hospital.

DAWSON WILLIAMS.

ABSTRACTS AND NEW REMEDIES.

PERMANENT EMULSIONS IN SKIN DISEASES.—*Eczema lupus*. This was of many years’ standing, and had extensively implicated the right side of the face. The skin was covered by tuberculous crusts, and an unhealthy ichorous discharge was present. Numerous ointments, lotions, and mixtures of the two were tried in vain. As a last resort, was used:

- Vaseline.....1 oz.
- Bismuth trisnitrate.....1 dr.
- Ft. unguentum.
- Gum acacia.....160 grs.
- Boric acid.....16 grs.
- Water.....1 oz.
- Ft. lotio. Misce.

The patient, an elderly lady, was directed to smear this over the crusts several times a day, and not to wash it off, but to apply one layer upon another until a thick covering had been formed. Rapid improvement took place. Three weeks from the commencement of this method of treatment the whole crust came away. The entire surface beneath it was found to be sound and healthy. With the exception of a slight amount of scalliness and a scar of considerable extent, the patient remained free from the complaint for nearly two years. A slight return of the eruption then manifested itself, and a further use of the remedy again produced a successful result. No

* Tristram Shandy, vol. II, 19.

further return of the disease has since occurred. This case is recorded at length to serve as a typical illustration of the good effects to be derived from so simple an application, even in lupus. A few cases of an analogous character have since come under my notice, and applications similarly medicated gave equally satisfactory results.

With some few exceptions, the most obstinate kinds of eczema will yield under their continued use. In fact, strange as such a statement may appear, the more incurable, apparently, the disease, or the more aged the sufferer, the more quickly does the emulsion effect a permanent change for the better. Broken chilblains and the eczematous eruptions that occur on the extremities from various local causes, are especially obstinate under ordinary local remedies. An individual suffered for years from eczema of the fingers, due to the constant handling of irritants. The itching ceased under the treatment, and the hands were soon free from the disease, although this patient remained all the time at his occupation.

One of the principal points with this treatment in eczema is the relief of itching and irritation. This takes place almost immediately after the remedy is applied. An elderly gentleman consulted me who had been for years afflicted with chronic eczema. He had not had a proper night's rest for months. The pruritus was intense. The bismuth formula was applied when the irritation was troublesome, with directions that no textile dressings were to be used, and that the part was to be kept dry. This was the only application which enabled him to sleep. At first one application daily was sufficient, but afterwards a single application arrested the itching for a week. The disease is now practically well, but he still uses the remedy at intervals of a fortnight to make certain of thoroughly eradicating the complaint.

Another gentleman suffered similarly with severe pruritus associated with chronic eczema. Two applications of the remedy permanently arrested the itching and cured the disease.

I give these as types of many cases in which the emulsion treatment acted with uniform certainty. The trouble-

some pruritus of old people is rapidly cured under its use. The irritation of chronic urticaria was effectually arrested in seven cases in which the emulsion was tried. Crude pyroligneous acid in a thin and well-diluted emulsion will be found to act well in such cases, but other formulæ are equally effective. In chronic urticaria it is generally necessary to administer internally a suitable alkali in conjunction with the local remedies until all fresh wheals and papules have ceased to make their appearance. In eczema capitis, or scald head, the medication of the emulsion in recent acute cases requires to be varied to suit each case individually. The bismuth formula certainly proves rapidly curative in chronic cases, and especially in those that have resisted other forms of treatment. Where this formula has failed, I have employed oxide of zinc with glycerine or salicylic acid with good results. The acute eczema of infancy is the only form of catarrhal eruption which does to any extent resist the action of these preparations.

Permanent emulsions have proved very effectual in psoriasis. This basis, when suitably medicated, is the best I have ever used in this complaint. After a variable time the application dries, effectually covers up the affected part, and curative drugs are retained in continual contact with the hypertrophied papillæ. Chrysarobin, trisnitrate of bismuth or salicylic acid, if used as medicaments in quantities of from five to ten per cent. upwards, can be applied in this manner. The chrysarobin emulsion is a cleanly compound. It should be gently rubbed in for several minutes. Owing to its drying on as a film, it prevents staining of linen or surrounding parts. One of the most satisfactory formulæ to use in psoriasis is constituted as follows:

Paraffin molle.....	$\frac{1}{2}$ oz.
Zinc oxide.....	1 dr.
Pure liq. carbolic acid.....	1 min.
Ft. unguentum.	
Gum acaciæ.....	.80 grs.
Boric acid.....	.8 grs.
Glycerine.....	1 dr.
Aquæ	$\frac{1}{2}$ to 1 oz.
Ft. lotio.	

Place the ointment in a warmed mortar; incorporate with it the gum; then add two drachms of hot water, and

finally the remainder of the water mixed with the ingredients of the lotion.—KNAGGS, in *Provincial Med. Jour.*

ANTISEPTIC PROPERTIES OF "LANOLIN" AS AN OINTMENT-BASIS.—Gottstein, in the *Berliner Klin. Woch.*, states that lanolin is absolutely inimical to the growth of micro-organisms. It does not undergo decomposition under the influence of the air, even when water or an alkaline solution is present, whereas all ordinary fats (glycerine fats) spontaneously decompose and become rancid from the separation of their appropriate fatty acids. Whether a body is a fit material for the growth of bacteria or not, depends upon such decomposition, and it might be asserted beforehand that lanolin is inimical to bacterial life. But Gottstein has submitted the question to direct experiment, and has found that no bacteria of any kind can be grown upon or in lanolin. Certain putrefaction bacteria perish also in glycerine fats; and this is owing to two causes: first, because the fatty acids set free are hostile to bacteria; and secondly, because most germs found in the air are *aërobic*, that is, they require a fitting nutritious basis, the oxygen of the air, for their development. The air, however, contains also *anaërobic* germs, and it can be shown by experiment that sterilized (ordinary) fat, after it has been exposed for a few days, and has undergone the usual changes (a yellowish appearance and rancid odor), contains *anaërobic* germs in its interior. This is one of the chief distinctions between lanolin and ordinary fats, for such germs are not found and cannot develop in lanolin. But a second series of experiments showed in a still more striking manner the difference in this respect between lanolin and ordinary fats. When bacteria develop in a certain nutriment, even though the latter undergo no visible alteration, they will penetrate into any underlying nutriment of fit character, and develop in it also. But if the layer into which they are first introduced be adverse to their growth, it will prevent their penetration into the adjacent layer of nutriment. Thin layers of different kinds of fats, including lanolin, were poured over the gelatine surface in various test tubes re-

spectively, and each tube, with its gelatine-covered fat, was thoroughly sterilized. After a few days solid substances known to contain *anaërobic* bacteria, for example, garden mould and old cheese—were dropped upon the fat. The constant result was that bacteria rapidly developed in pork fat, and extended to the gelatine, while in the lanolin glasses the gelatine remained perfectly clear. The contrast was very striking. The results of the experiments taken together are as follows: 1. The bacteria which take part in the spontaneous decomposition of glycerine fats are presumably *anaërobic*. Of *aërobic* germs, several kinds (some of which are connected with ordinary putrefaction) perish upon a fatty nutritive basis, the rapidity with which they die being in direct proportion to the amount of fat present. 2. Exposed ordinary fat is found to contain *anaërobic* germs after a few days; lanolin similarly exposed contains no germs of any kind. 3. Glycerine fats can be penetrated by bacteria; lanolin, on the contrary, forms an impermeable layer. The above facts are of interest therapeutically and biologically. As regards biology, Liebreich has shown that cholesterine fats, which are chemically the same as lanolin, are a normal constituent of the epidermis in man and the lower animals, thus constituting the most powerful protection against infection from without. Furuncles may appear, it is true, and may be shown to contain pus-cocci; but no connection in point of time exists between this development in superficial or deeper layers of the skin. And furuncles are always a sign of deficient vitality of the skin, for example, in the stage of convalescence after typhoid, and in malarial children. There must be a causal connection between these facts. Therapeutically speaking, lanolin has a great future before it. Its miscibility with water in any proportion, its ready absorbability by the skin, its freedom from any tendency to rancidity, as confirmed and explained by the above experiments, constitute it the vehicle *par excellence* for cutaneous medicaments. Its preservative properties ought also to find practical application in other ways.—*Brit. Med. Jour.*

REVIEWS AND BOOK NOTICES.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JOHN V. SHOEMAKER, A.M., M.D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital, Philadelphia, etc. With colored plates and other illustrations. New York, D. Appleton & Co., 1888. 8vo cloth, pp. 633.

This is a systematic treatise upon the subjects usually discussed in the text-books on dermatology. The descriptions are clear, concise, and remarkably correct. Hebra's classification, slightly modified, is followed. The final chapter contains a copious formulary. The author displays especial ability in the directions for treatment, which are practical, rational, and evidently based upon experience, and a knowledge of current literature of the science. We know of no better work for the student or general practitioner.

A PRACTICAL TREATISE ON THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By GEO. M. BEARD, A. M., M. D., and A. D. ROCKWELL, A. M., M. D. Sixth edition. Revised by A. D. Rockwell, M. D. With nearly two hundred illustrations. New York, Wm. Wood & Co, 1888. 8vo pp. 758.

A standard work like Beard & Rockwell's electricity requires no more than the announcement of its sixth edition. The paper is toned; in our opinion it would have a better appearance if pure white. The illustrations are abundant and elucidate the text.

THE MEDICAL AND SURGICAL REGISTER OF THE UNITED STATES, will be the title of the second edition of R. L. POLK & Co's DIRECTORY OF PHYSICIANS which will soon be issued.

Such a register is now indispensable, and should have the support of the whole profession. Any physician who is cognizant of mistakes or omissions in the first edition (which was remarkably correct) will confer a favor not only on the publishers but also upon those to whom such a work of reference is a necessity, if he will at once notify the publishers in Detroit, so that the second edition shall be as perfect as possible.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

CASE FOR DIAGNOSIS.

EDITORS MEDICAL TIMES:

Will you be kind enough to help me with a case I have been fighting for many months, with little, if any, improvement. The lady, aged 37, married, has five children. Her previous history is good; she is of one of the best families here. She was taken suddenly with a pain on the left side, sometimes at the seventh, then as low as the tenth rib. I have diagnosed intercostal neuralgia; and have treated the case internally as well as externally. I have used morphine hypodermically, belladonna liniment, chloroform liniment, veratria ointment; also have blistered several times. Internally, I have given morphine, chloral, iron, quinine, strychnine and antipyrine; and have watched the journals to see if there is anything else recommended. J. B. S.

[The pain of neuralgia is not usually so persistent, and we should look for a continuous cause, in uterine, cardiac or gastric disease. Blisters over the spinal transverse processes, corresponding to the affected nerve, may prove beneficial. Antipyrine may prove useful if given in doses up to 10 to 30 grains, when smaller amounts fail.]

ANSWERS TO SOME OF YOUR QUERISTS.

EDITORS MEDICAL TIMES:

On page 316, G. B. S. asks the profession two questions, which I will try to answer. The yawning I look upon as a rare effect of the salicylic acid. I have witnessed a similar case from the same cause. Is G. B. S. sure he has used the alkaline treatment fully? Its

author gave an ounce or more of the salt each day, and the bicarbonate is not as good as the carbonate, which is better borne in large doses. I am pleased to see that his experience with Merrell's salicylic acid agrees with mine, in that it is much better borne by the stomach than the synthetic acid.

I think Dr. Kane could produce the same effect in a shorter time if he would use a full-sized soft catheter instead of a metal one. The absorptive force of the rubber is much greater than that of silver.

In view of recent researches into the etiology of suppuration, does not Dr. Drake believe that this process began in the nose and passed up along the course of the nerve through the foramen in the cribriform plate of the ethmoid bone?

H. C. B's case is not very clear. Is his case of epilepsy due to ear disease or not? It is possible that the tertian attacks may be really malarial. I would try the effect of quinine in a case as distinctly periodical as the one he relates.

A. M. P's case, on page 254, may be one of catarrh of the gall-ducts, or of hepatic abscess discharging into the bowels. I would recommend a course of Carlsbad water, taken before meals, as hot as can be borne.

On page 252, J. H. S. describes a fairly typical case of neurasthenia. My opinion is decidedly antagonistic to that expressed by the editors. When one has been kindly let off with such a warning as J. H. S., he should take heed and stick to his farm, leaving alone such hard work as he formerly did. The constant motion of the cars in railroad travelling would be very apt to start his neurasthenia again into activity. "Let sleeping dogs lie."

TUDELA.

MISCELLANY.

THE DISPENSARY DOCTOR.

[By the invitation of Dr. Thomas Wistar, who has been Secretary of the Board of Managers of the Philadelphia Dispensary for more than twenty years, and always manifested a warm interest in the young medical men engaged in its service, a reunion of the physicians connected with that venerable institution was given at the rooms of the Penn

Club, on Thursday evening, March 8. With few exceptions, the invitations were confined to physicians who had been in the active service of the institution, including the present staff—a list comprising about one hundred names.

To the young medical practitioner, few better opportunities of acquiring practical knowledge and experience can be found than the dispensary service affords. Many physicians, living and dead, whose names are prominent in the medical annals of our city, have freely testified to the inestimable advantages which they derived from this source.

The Philadelphia Dispensary reunion was greatly enjoyed by all present. To both older and younger it seemed to be a pleasure to renew old acquaintances and make new ones. Medical gatherings like this one are as useful as they are pleasant. They promote a wider acquaintance, a better understanding, a greater unity of purpose and effort among medical men, and so far as they are prompted by a proper spirit in the promotion of a common cause, cannot fail to have a beneficial result. Towards the close of the evening, Dr. Wistar read the following poem appropriate to the occasion, which was cordially received, and requested for publication:—]

Three years of exile from his pleasant home,
Three years of poring over learned tomes,
Three years on benches that his bones make sore,

Three years of bending over dead men's gore,

Three years of trembling lest his funds give out,
And three years harassed with perplexing doubt—

(For who can know, until the very end,
If final triumph will his course attend?)

Such are the trials of his student life,
A fit probation for the after strife,
When daily rounds, 'mid filth and grime and blood,

Will sternly test his pluck and hardihood.

Then, for a moment, who so proud as he,
When hast'ning home to show his learned degree,

And read to friends and neighbors gathered round,

Its classic words of strange and unknown sound?

His parents fall upon his neck with joy
And honest pride that they have such a boy,
While timid sisters, between smiles and tears,
With warm congratulations fill his ears.

A few weeks' respite from the labors past,
A happy lot is his—perhaps the last—
While country sports and farming tasks he finds
The panacea for exhausted minds;

And rod and gun, and faithful Towser, too,
His boasted pills and potions quite out-do;
And where he feels a mother's pure control—
The best prescription for a torpid soul.

Delicious country! with thy rosy health,
Could man but quench his cursed thirst for wealth,
Wha' satisfaction would he find in thee
That town denies its restless votary!

Thy cheerful voices soothe the fretful mind,
Cares fly away on pinions of the wind,
And surely life confers no sweeter boon
Than soft siestas of thy summer noon.

Thy fields, thy woods, thy landscapes ever new
With changing beauty that delights the view,
Thy boundless light and air, thy flowers and
fruits,
Thy restful quiet that reflection suits ;—

Where simple joys and mild contentment reign,
Nor vain ambition taxes heart and brain :
Such are the gitts by bounteous nature given,
That make thy peaceful paths seem nearest
heaven.

Alas, our Æsculapius has not learned
The knowledgemost by pain and sorrow earned,
And so he turns him from his rural seat
To pace again the city's crowded street ;

An office opens in a modest way,
Where sons of ease and fashion seldom stray,
With each device young doctors too well know,
Whose slender means allow no room for show.

How many such, though poor and mean to view,
Have hearts as brave as ever hero knew !
He struggles on, with hope that somewhere lies
Some small reward for years of sacrifice.

With kindly heart, scarce asking if it pays,
By day, by night, through slums and alleyways,
He trudges on wherever suffering calls
And poverty its human prey enthalls.

He braves contagion in its dark abode,
From heavy hearts removes the weary load,
While oft his scanty purse supplies the need,
Where mothers weep and hungry children
plead.

The world, too busy in its rush for gain,
Knows or cares little for the cruel strain ;
Or, if it heeds, it coldly wonders why
A man like him should list the poor man's cry.

Devoted men ! now all unknown to fame,
The poor man's praise will yet exalt your name
'Till wealth and fashion from their gilded throne
With just reward your vaunted skill must own.

Your great Exemplar trod the path before,
Dispensing healing to the sick and sore ;
And truly, we may ask, what more you would
Than just the luxury of doing good ?

For him whose courage holds, before whose eyes
When fortune smiles and yields the long-sought
prize,
No truer pleasure will success secure
Than heartfelt blessings of the worthy poor.

THOMAS WISTAR.

Philadelphia, March 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS
AND DUTIES OF OFFICERS SERVING IN THE
MEDICAL DEPARTMENT, U. S. ARMY, FROM
FEBRUARY 26, 1888, TO MARCH 10, 1888.

FIRST-LIEUT. W. W. FISHER, ASSISTANT-SUR-
GEON.—Sick leave extended one month on
Surgeon's certificate of disability. S. O., 50,
A. G. O., March 2, 1888.

APPOINTMENT.

PAUL SHILLOCK.—To be Assistant-Surgeon,
with the rank of First-Lieut., Jan. 31, 1888.

FIRST-LIEUT. PAUL SHILLOCK, ASSISTANT-
SURGEON.—(Recently appointed). Ordered
for duty at Fort Assiniboine, Montana. S.
O., 50., A. G. O., March 2, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND
DUTIES OF MEDICAL OFFICERS OF THE U. S.
MARINE HOSPITAL SERVICE, FOR THE WEEK
ENDED MARCH 10, 1888.

HUTTON, W. H. H., SURGEON.—To proceed to
Brunswick, Georgia, on special duty, March
5, 1888. Detailed as President of Board to
select site for Gulf Quarantine Station, March
10, 1888.

CARTER, H. R., PASSED ASSISTANT-SURGEON.—
Detailed as Recorder of Board to select site
for Gulf Quarantine Station, March 10, 1888.

WASDIN, EUGENE, PASSED ASSISTANT-SUR-
GEON.—Granted leave of absence for thirty
days, March 8, 1888.

BRATTON, W. D., ASSISTANT-SURGEON.—Or-
dered to examination for promotion, March
7, 1888.

OFFICIAL LIST OF CHANGES IN THE MEDICAL
CORPS OF THE NAVY FOR THE TWO WEEKS
ENDING MARCH 17, 1888.

ASSISTANT-SURGEON E. P. STONE.—Detached
from the Coast Survey Steamer "Bache" and
to Hospital New York for treatment.

ASSISTANT-SURGEON JAMES F. KEENEY.—Com-
missioned March 1, 1888.

SURGEON GEORGE R. BRUSH.—Ordered to the
"Omaha" when "Pensacola" arrives at As-
pinwall.

PASSED ASSISTANT-SURGEON VICTOR C. B.
MEANS.—To the "Omaha" when "Pensaco-
la" arrives at Aspinwall.

PASSED ASSISTANT-SURGEON W. H. RUSH.—
Detached from Navy Yard, New York, and
to Naval Hospital, Philadelphia, Pa.

PASSED ASSISTANT-SURGEON J. M. STEELE.—
Detached from Naval Hospital, Philadelphia,
and to Coast Survey Steamer "Bache."

MEDICAL INSPECTOR A. S. OBERLY.—Detached
from Navy Yard, Portsmouth, N. H., and
wait orders.

SURGEON F. L. DuBois.—Ordered to the Navy
Yard, Portsmouth, N. H.

ASSISTANT-SURGEON JAMES KEENEY.—Ordered
to the Receiving-Ship "Minnesota."

PASSED ASSISTANT-SURGEON C. W. DEANE.—
Detached from Marine Rendezvous, San
Francisco, and to Coast Survey Steamer
"McArthur."

ASSISTANT-SURGEON E. W. AUZAL.—Detached
from Coast Survey Steamer "McArthur" and
to Marine Rendezvous, San Francisco.

PASSED ASSISTANT-SURGEON CLEMENT BIDDLE.
—Ordered to Naval Academy, Annapolis,
Md.

bowels were much congested for a distance of four feet from the ileo-cæcal valve. There were numerous ulcers, but no perforation. The mesenteric glands were much enlarged. The right pleural cavity contained six ounces of serum. The lung was bound down by numerous new adhesions, which were easily broken up. Both lungs were partially solidified, the left being the more solidified of the two. The pericardial sac contained a little serum. The heart was normal, the spleen was enlarged, the liver was congested. The kidneys were soft and much congested.

There is no question as to the nature of the disease in this case. The patient had been sick for fifteen days before admission, with diarrhœa and epistaxis as the principal symptoms. On admission, as we have seen from the notes, there were high temperature, an injected eye and a tongue coated and red at the tip and edges. The bowels continued to be loose, and the stools presented the characteristic appearance of those seen in typhoid fever. Besides these, there were rose-colored spots, tympany, tenderness on pressure and another sign to which attention is not sufficiently directed: enlargement of the area of splenic dullness. With this array of symptoms, there was no difficulty in reaching a diagnosis. The patient was at once placed upon the usual treatment, which is really what is called the expectant treatment.

The note taken on admission states that the lungs are healthy. They, however, soon became involved, and we had the symptoms of a severe pneumonia. When I saw the patient for the first time, he was extremely weak; the pulse was 140 to the minute, the respirations were very rapid, there was a cyanotic hue of the skin, and death seemed certain. As I have already said, the post-mortem examination shows that the lungs are much congested. There are also evidences of pleurisy. You will observe that the lobes of the lungs are connected to each other by delicate adhesions, and there were also adhesions between the lungs and the chest walls.

The principal feature is the ulceration of the intestine. In typhoid fever these ulcerations are almost always

confined to Peyer's patches. At times, however, there is also ulceration of the solitary glands. As you know, the seat of this ulceration is most commonly the lower portion of the ileum. It is rare to find them in the upper portion of the ileum and in the jejunum. The mesenteric glands are usually enlarged; this is particularly true of those that are situated in the neighborhood of the ileo-cæcal valve. As you see, they are here enlarged. Frequently you will be able to make the diagnosis, without opening the intestine, from the presence of this enlargement of the mesenteric glands.

I think that this patient died quite as much from the pulmonary complication as from the general disease, and, if it had not been for the inflammation of the lung, the life of this young man might have been saved.

Examination of such specimens as I have brought before you to-day clearly show why it is that so much stress is laid upon the importance of attention to diet in typhoid fever. You can readily understand that any irritating article of food, coming in contact with these ulcers, would tend to increase the trouble and, where the ulceration was advanced, would favor the production of perforation. In fact, perforation not infrequently occurs during the process of cicatrization, from the use of improper articles of food. The swallowing of the bones of small birds or of fish has often been the direct cause of perforation. One of the principal indications in the treatment of typhoid fever is, therefore, to avoid as much as possible irritation of these ulcers. If the diarrhœa is excessive, check it; keep the patient at rest; give him food which is easily digested, and digested by the upper part of the alimentary canal. Under such a course of treatment the patient will usually recover. During the past four months we have had under treatment forty-seven cases, with three deaths. This is as favorable a result as is obtained in any hospital.

RHEUMATISM WITH REPEATED RECURRENCE.

This patient, aged 26 years, a button-maker by occupation, was admitted to the hospital December 18, 1887—that

is to say, six weeks ago. His father had rheumatism, but his mother is living and healthy. The patient himself had rheumatism eleven years ago, and he states that since then he has had an attack of rheumatism every year. The present illness began, one week before admission, with cramp in the abdomen and constipation. This was followed by pain in the wrist and swelling. The shoulders were next affected and then the pain extended to the knees; and finally nearly all of the joints were more or less involved. He also had severe pain in the cardiac region, with much dyspnoea.

On admission, it was noted that he was well nourished, temperature 102° . He complained of pain in the knees, with considerable dyspnoea and pain in the cardiac region. The impulse of the heart was found to be diffused. The apex beat was in the sixth interspace, one inch outside of the nipple line. The area of cardiac dulness was much increased; a murmur was heard at the mitral and at the aortic areas. The lungs were examined with negative results. The urine had a specific gravity of 1021, was acid, contained a trace of albumen, but no casts. The treatment consisted in the administration of salicylate of sodium.

Dec. 22. Acetate of potassium was substituted for the salicylate of sodium.

Dec. 24. The pain was much less, but the temperature was still high, reaching 103° . There were also some signs of pulmonary congestion.

Dec. 27. A marked to-and-fro friction sound was heard over the heart, the point of greatest intensity being over the left ventricle. The following day a friction sound at the base of the right lung was detected.

Jan. 1. The patient was free from pain, and there was a slight effusion into the pleural cavity. He gradually improved and was soon out of bed; but three weeks later, was again attacked with rheumatism. The effusion into the pleura had also increased. He was ordered one-half ounce of acetate of potassium daily. During the following week pleural friction sounds again appeared, the wrists became painful and swollen, and the ankles were also involved.

Jan. 30 (two days ago). The acetate of potassium was stopped, but the quinine, which he was also taking, was continued. To-day the temperature is only slightly above normal.

I have brought this patient before you because he illustrates several features of rheumatism which it is important that you should know. In the first place, we have a patient who is moderately young, and who had his first attack of rheumatism eleven years ago, and who, since then, has had repeated attacks of the disease, an attack occurring every year. This case therefore illustrates the marked tendency of rheumatism to recur. It also shows the liability of rheumatism to relapse. We had here an attack of rheumatism, followed by convalescence, and then we have a return of the disease. We have also another characteristic of rheumatism illustrated, and that is its tendency to affect the heart. The patient, when first admitted to the hospital, was found to be the subject of disease of this organ. Whether this was set up by the first attack or by some of the subsequent attacks, it is of course impossible for us to say. As we have seen in this patient, the disease of the heart may occur, notwithstanding treatment of the rheumatic attack. For while this patient was under the alkaline treatment, pericarditis was developed. I have seen this complication under the alkaline treatment, under the salicylic acid treatment, and in fact under every plan of treatment which has been recommended for rheumatism. While, therefore, treatment may modify the tendency to this complication, it does not entirely prevent it.

The patient is now convalescent, but it is impossible to say that he will not have another attack of rheumatism. He may, as a result of exposure or a change in the weather, suffer a relapse. In the different attacks, different parts of the body may be affected.

Let us turn for a few minutes to the present condition of the heart. The impulse of the heart is diffused and also more forcible than normal. The apex beat is felt in the sixth interspace, instead of in the fifth as in health. It is moreover outside of the nipple line. We know from this examination alone

that the heart is enlarged. This opinion is confirmed by percussion, which shows that there is a decided increase in the area of cardiac dulness. The murmur which I hear most distinctly on auscultation has its point of greatest intensity at the apex and is systolic in time. It is therefore a murmur due to mitral regurgitation. I find at the base another murmur which differs entirely from that heard at the apex. This murmur is diastolic in point of time, is softer in quality than the one heard at the apex, and is therefore due to aortic regurgitation. If you desire simply to determine whether or not the heart is the seat of disease, you will find it better to listen with the ear applied directly to the chest, but if you wish to accurately locate a murmur and determine its point of greatest intensity, the stethoscope will be found to be of service.

What is the effect of the two conditions which we find present in this case? As a result of the aortic regurgitation we have the blood entering the ventricle from two sources, both from the left auricle and from the aorta. There must be, as a consequence, dilatation of the ventricle. As a result of this it is necessary for the heart to make an increased effort to empty itself, thus producing hypertrophy of its walls. If the patient is in good general health, we have first dilatation, and secondly, hypertrophy; but if the general condition of the patient is not good, the dilatation remains, and as a consequence a deficient power of the heart. This hypertrophy is not a condition to be avoided. If there is much valvular disease of the heart there must be hypertrophy in order that the circulation may be carried on. If hypertrophy gives place to dilatation we have as a necessity imperfect circulation. This seems so plain that it needs no further explanation.

The patient is now pretty well over his rheumatic symptoms. The slight degree of fever which is present is probably due as much to the debility as to anything else. There is no indication which calls for the continued administration of any remedies for the rheumatism. There is, therefore, no necessity for keeping up the use of acetate of potassium, salicylate of so-

dium and remedies of that kind. We should now give remedies which will improve the general condition. I think that quinine is indicated. Twenty to thirty drops of the tincture of the chloride of iron may also be given with advantage every two or three hours. This remedy if given diluted and taken through a tube will not injure the teeth. The question arises in a case of this kind as to the advisability of giving digitalis. I think that where there is a tendency to dilatation, digitalis carefully given and its effects closely watched is often of service. This patient is now taking digitalis. The diet must also be carefully attended to and should be as nutritious as the patient is capable of digesting. Rest in bed should also be insisted upon.

ACUTE RHEUMATISM WITH INVOLVEMENT OF THE HEART.

The next case affords us an illustration of an acute attack of rheumatism. The patient was admitted to the hospital one week ago. He is twenty-seven years of age. The family history is good with the exception that the mother has attacks of rheumatism. The patient had fever and ague five years ago, and since then he has had several attacks; with this exception, he has been in good health. The present illness began ten days before admission, but did not give him much trouble until five days later, when the pain became so severe that he could not attend to his work. The next day he had pain in the cardiac region which disappeared after remaining one day. On admission he was found to be fairly well nourished; the tongue coated, the bowels constipated, the temperature 103°. The patient complained of pain in the legs, arms and shoulders. There was no shortness of breath. A soft murmur at the apex, systolic in point of time was found on auscultation. The examination of the lungs gave negative results with the exception of a few bronchial râles. The urine was negative. The treatment consisted in the administration of twenty grains of acetate of potassium every second hour and the use of Rochelle salts to act upon the bowels.

January 25, (the day following admission). More pain in the cardiac region, and the right wrist began to swell. The next day he was given one

sixth of a grain of calomel with five grains of bicarbonate of sodium every second hour. The painful joints were wrapped with cloths moistened with a solution of the bicarbonate of sodium. The temperature lowered, and two days ago the acetate of potassium was stopped and salicylate of sodium in twenty grain doses every three hours was given. The temperature at present is very little below normal.

Here we have had all the symptoms of an acute attack of rheumatism. It begins acutely with pain which soon prevents him from walking, and he is brought into the hospital with a high temperature and with evidences of cardiac involvement already present. The patient is somewhat anæmic, and the question might arise whether or not the murmur is of organic origin. This murmur is best heard at the apex, while functional murmurs are almost always heard at the base of the heart to the left of the sternum. We therefore have no hesitation in attributing this murmur to mitral regurgitation, the result of endocarditis. In rheumatism there is almost as great a tendency to inflammation of the heart as there is to that of the joints. There is scarcely a case of rheumatism that comes into this house, after being sick for a week or ten days, in which a murmur is not heard. This may vary according to the extent of the disease of the valve from simply a murmurish character of the natural sounds of the heart up to a loud, rough murmur. Pericarditis and endocarditis are therefore frequent complications of this disease, and it is important that in every case of rheumatism the heart should be carefully examined. Even in pericarditis, which is a more painful disease than endocarditis, the patient does not always complain of pain. Endocardial murmurs are often found where there has been nothing to call attention to the heart. It is therefore necessary that the heart should be examined in all cases of rheumatism, in the lighter forms, as well as the more severe. I have sometimes thought that the cardiac complications were more common in the comparatively light cases than in where the joint affection was more marked.

This case well illustrates the tendency of rheumatism to shift from one

joint to another. We have it here passing from the ankles to the wrist without any apparent cause. We may to-day have the ankle swollen and painful, and to-morrow, no sign of trouble in this joint, but the disease presenting itself in some other part. At the next visit we may find these joints well and the disease in some new joints, or returned to those first affected.

There is as a rule, no affection of the joint left after recovery. A person may suffer for weeks with severe pain in the joint which is swollen and immovable, and yet when convalescence ensues, there will remain no evidence that it has been involved. There are, as you are aware, certain diseases allied to rheumatism, as, for example, rheumatoid arthritis, where there is a permanent lesion of the joints, but in the immense majority of cases of true rheumatism the affection of the joint is only temporary. This unfortunately, is not true of the heart; when once affected it rarely returns to the normal condition. It is therefore of the greatest importance to prevent, if possible, involvement of the heart. This is not easily done, for as I have already said I know of no plan of treatment which is entirely efficacious in preventing lesions of the heart. The alkaline treatment when pushed to an extreme degree has the power of preventing, to a certain extent, the occurrence of this complication. The treatment with salicylate of sodium also has this power. The objection to the alkaline method of treatment carried to an extreme degree is that it produces intense anæmia. The salicylate of sodium is also open to this objection. It also sometimes produces nausea and disagreeable sensations about the throat. As soon as the fever is modified it is better to substitute the salicylate of sodium by quinine and the tincture of the chloride of iron which are more acceptable to the stomach.

With reference to food I may say that during the acute stage the patient should have little or no meat and a rather low diet, for experience has shown that the use of meat tends to increase the severity of the symptoms. Milk is not open to this objection, and it, with farinaceous articles, may be given with advantage.

ORIGINAL COMMUNICATIONS.

A REPORT OF SOME CASES OF ABDOMINAL SURGERY.

BY J. M. BARTON, M. D.,

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(Read before the Philadelphia County Medical Society, and the specimens exhibited at a meeting held April 11, 1888.)

GENTLEMEN:—By invitation of your Board of Directors I submit specimens this evening from cases of abdominal surgery, and present the following notes for your consideration:

Abscess of liver. Free incision and drainage; recovery.—George B., aged thirty-eight years, was admitted to the medical wards of the Jefferson Medical College Hospital, July 29, under the care of my colleague Dr. Neff. The patient was suffering with an immense abscess of the liver, extending the area of the percussion dulness to below the umbilicus and to the left of it. At the request of Dr. Neff, I removed by aspiration more than a quart of "brick-dust" colored pus, with such relief that the patient was able to return to his home in the interior of the State. The abscess cavity rapidly refilled, and he returned to the hospital, when we decided to operate by the method of Dr. Ransohoff, of Cincinnati; making an incision through the abdominal wall, five inches in length, at the outer edge of the right rectus muscle, permitting it to gap, fastening the edges of the wound by sutures to the liver, and when firm adhesions had taken place, opening the liver by the galvanic knife. When adhesions were found to have formed, and I attempted to divide the tissues of the liver with the galvanic knife it did not act well; at first, while white-hot, it would cut readily, but the resulting very free bleeding, quickly short-circuited the current and the knife became instantly cold. After repeated trials it still proved so unsatisfactory that an ordinary scalpel was substituted, with which the pus cavity was reached. An attempt to check the bleeding from the margins of the incision, by the cautery knife, was also unsuccessful, and it was only by filling the wound with a number of rubber catheters,

which happened to be at hand, that the hemorrhage was controlled.

The abscess cavity was washed out daily with various antiseptics; it gradually closed, and the patient was discharged cured. When Dr. Neff saw him the following December, his weight was one hundred and fifty-six pounds, his pulse beat eighty to the minute, and he had no evidence of hepatic disease.

Epithelioma of the œsophagus; gastrostomy; death.—John T., aged forty-two years, a patient of Dr. Joseph Lopez, of Philadelphia, was admitted to the Jefferson Medical College Hospital, December 5, 1884. He had suffered with difficulty in swallowing for one year, which had gradually increased until, at the time of admission, he had taken no nourishment whatever into his stomach for a week, and but little for the last two months. He was greatly emaciated. He could drink as much as three ounces of fluid, which would be immediately ejected with great force. A bougie could be passed readily to within four inches of the cardiac orifice of the stomach, when it was suddenly arrested.

I performed gastrostomy December 9, assisted by Drs. S. W. Gross, Brinton, Pancoast, Hearn, and others. An incision two and a half inches long was made parallel to the margin of the ribs on the left side, and about one finger-breadth from them, beginning at the outer edge of the rectus muscle. As soon as the peritoneum was opened, the stomach appeared and its identity was verified by those present; six sutures were used to bring the viscus in contact with the abdominal opening, two at each side and one at each end. Each suture was made by placing two needles upon a fine silk thread; one of them was carried between the muscular and mucous coats of the stomach for about one-third of an inch and brought out, both needles were then carried through the abdominal walls about one-third of an inch apart. Traction upon these sutures brought the walls of the stomach in close contact with the parietal peritoneum. None was tied until all the sutures were in place. A silver wire suture was introduced through the outer coats of the stomach about the centre of the portion exposed,

to serve as a guide when the stomach should be opened some days latter.

The patient suffered no pain or other inconvenience from the operation, and had no evidences of peritoneal inflammation, but notwithstanding that the nourishment by rectum was continued and well retained, he lost ground so rapidly and his exhaustion, was so great that we opened the stomach on the second day instead of waiting for the fourth or fifth day as is customary. Immediately on opening the stomach a rubber drainage-tube was introduced and, by a funnel inserted into the tube, several ounces of warm milk were at once given, and though this was repeated every few hours he continued to sink and died two days later, or four after the operation.

Large uterine fibroid. Exploratory incision; universal adhesions preventing removal of uterus or of ovaries; recovery.—Miss Mary A., aged thirty-six years, school teacher, was sent to me by Dr. James Graham, in February, 1885. She had a large submucous fibroid, causing the uterus to rise above the umbilicus. The increase in size was first noticed one year ago. She formerly had some irritability of the bladder, which had now ceased. Her menstrual periods usually lasted about ten days. The ergot which Dr. Graham had prescribed for her was continued, and operation not advised. The hemorrhage, however, gradually increased, until by the latter part of April, when I again saw her, she had been obliged to abandon her occupation, and had been unable to leave her house for a month.

April 27, 1885, assisted by Drs. Da Costa, Edward, and Percy Graham, and Dr. Koons, I made an exploratory incision in the median line, between six and seven inches in length. The bladder was found entirely above the symphysis, and in the line of the incision. By pushing it downward and increasing the incision upward, I was able to gain access to the pelvis.

The uterus was greatly and irregularly enlarged and everywhere adherent to the surrounding structures. The intestines were so firmly fastened together that we were unable to find or remove the ovaries. The abdomen was

closed with silk in the usual manner. The patient made an uninterrupted recovery. Full antiseptic precautions had been taken.

There are some points of interest connected with the subsequent history of this case. Though previous to the operation she almost invariably bled for ten days at each menstrual epoch—and at least twice between the menstrual flows, immediately after the operation the excessive bleeding ceased and for nearly two years she regular, menstruated but three or four days; she did not lose more than one-fourth of the quantity each day that she had prior to the operation and there was no bleeding whatever between the menstrual periods.

Her menstrual periods have gradually and irregularly increased until now, nearly three years after the operation, I find in my last note made this year, "No bleeding between menstrual periods, menstruation lasts from three to ten days, when the latter the bleeding is slight most of the time."

Her pains have ceased since the operation, her general health has greatly improved, and she looks much younger. Ever since the operation she has been, and is now, following her occupation as a school teacher. Nothing was done at the operation to account for this improvement, which is great enough to have been considered quite a success, if the ovaries had been removed.

The tumor is gradually increasing in size, and is now beginning to interfere with respiration.

The next case is one of so much interest that I am anxious to have it on record, though the principal part of the operative treatment was not performed by myself. The laparotomy was performed by my colleague, when I was a member of the staff of the German Hospital, Dr. F. H. Gross, during his term of service; the herniotomy by myself, during my term, though we were both present, and took active part in both operations. I am indebted to Dr. Gross for permission to report this case.

Strangulated hernia. Operation; loss of nine inches of intestine; subsequent laparotomy; several feet of bowel found obstructed by inflammatory de-

posits; bowel above the obstruction joined to bowel below the obstruction; recovery.

—Frank F., aged eighteen years, was admitted to the German Hospital on the evening of March 3, 1884, with a strangulated right inguinal hernia of eighteen hours' duration. On opening the sac of the hernia nine inches of the bowel were found to be in a sloughing condition. The ring was nicked, the healthy ends of the bowel made to protrude, and the gangrenous portion incised. We proposed, on the next day, to freshen the edges of the healthy bowel and bring them together. By the following morning the patient had developed an intense peritonitis with a temperature of 104° , and the operation was postponed. After a week of severe illness he recovered, the sloughing bowel having separated in the meantime.

Some weeks later, as he was slowly emaciating, and the discharges looked as though the artificial anus was high up the bowel, operative interference was decided upon. The wound was enlarged directly upward, at first slightly, but ultimately to the extent of several inches, for the purpose of joining the divided ends of the bowel.

In the neighborhood of the artificial anus, a portion, to an extent of two or three feet, of the intestine was found strongly matted together by inflammatory deposits; small projecting loops of a few inches in length were found free with both ends terminating in the mass. The lower end of the bowel, from which the slough had separated, could not readily be distinguished from any of the other loops; and it soon appeared that it would be useless to join it to the bowel which formed the artificial anus, as it was completely obstructed at many points. As the colon was free, and a few inches of the ileum, at the suggestion of Dr. Weed, then one of the resident physicians, it was decided to join the bowel forming the artificial anus to the colon. For this purpose a small opening was made in the cæcum, and one blade of Dupuytren's enterotome introduced, the other being carried into the bowel forming the artificial anus, and the two blades clamped together. A temporary ligature was placed around both intestines while the toilette of the

peritoneum was made; they were then fastened in position, and the wound, about six inches in length, closed.

The patient did well after the operation, though it was found necessary to reapply the enterotome twice before a satisfactory opening was obtained, three times in all. The fecal fistula rapidly contracted, and when I last saw him he was able to wear a pad over it for a week without removal; his bowels acted naturally, he was free from pain, gaining flesh, and was working as elevator boy at the hospital.

I heard afterward that another surgeon had attempted, though unsuccessfully, to close the fistula.

Ruptured ovarian cyst. Ovariectomy; death on the fourth day.—Mrs. D., aged fifty-four years, a patient of Dr. Hogue, of Houtzdale, Clearfield Co., Pa., had suffered for some years with a large ovarian tumor, and though she had been advised by many physicians to have an operation performed, she refused until symptoms of suffocation appeared, when I was hurriedly summoned to come and operate.

The abdomen was enormously distended, but did not present the typical diagnostic points which usually accompany ovarian tumor.

Dr. Hogue, of Houtzdale, his brother, Dr. Hogue, of Utahville, and two of their office students were present and assisted at the operation. On incising the peritoneum, at once the contents of the ruptured cyst appeared in the wound. This material would not flow through a canula, and it was not until the incision had been increased to six inches that I was able to draw the glucose-like mass out; even then it would not run, but had to be lifted and drawn out by the hand. Of this substance there were in all about sixty pints. The abdomen was cleaned with great difficulty, the material was adherent to everything and had penetrated to all portions of the cavity. Both visceral and parietal layers of peritoneum were thickened, roughened and nodular. The cyst was ruptured in many places, and had probably been ruptured for a long time. It had but few adhesions and these to the omentum, its pedicle was long, and had the operation been performed before rupture it would have

been quite a favorable case. The pedicle was tied with silk, dropped, and the abdomen closed. The patient scarcely suffered from shock, though the operation was quite prolonged. After the operation she did well for two days, some of the cyst contents passing through the drain, but she perished on the fourth day, probably with septic peritonitis.

Encysted pelvic abscess. Abdominal and visceral peritoneum stitched together, abscess emptied and drained; recovery.—Morris S., aged thirty-one years, was admitted to the Jefferson Medical College Hospital, June 17, 1886. He had a tumor about the size of the adult fist, deep in the right iliac fossa, just to the right of the median line. It was regular in its outline, not very painful, though tender on deep pressure, and it was covered by the intestines.

He stated that he had noticed it for two years, and that it was nearly its present size when first discovered. He had lost flesh, but was still in quite fair health. No pulsation and no murmur could be detected. His temperature, though normal in the morning, ran up to 102° each evening. It was now considered as probably an encysted, purulent collection, although there were no evidences of any disease of the spine or kidneys.

With the assistance of my colleague, Dr. O. H. Allis, and the house staff, I made an incision four inches in length, beginning one inch above and one inch to the left of the anterior superior spinous process, then carried it downward and inward parallel to Poupart's ligament; about the same incision as is used for the ligation of the iliac arteries. After the muscles were divided, the transversalis fascia was separated until we were close to the growth, when fluctuation was readily detected. Carrying our incision toward the mass it was found that the parietal layer of peritoneum and that covering the abscess, though in contact, were not adherent. A series of catgut sutures and some silk ones were introduced, fastening the two layers of peritoneum together and surrounding the proposed point of incision. After verifying our diagnosis by the exploring needle, a free incision was made giving exit to

about eight ounces of healthy, odorless pus. A finger introduced into the abscess cavity failed to discover the cause of the collection. A large drainage-tube was introduced, by means of which the cavity was daily irrigated with antiseptic solutions, the discharge gradually ceased, and he was sent out cured, July 26, 1886.

Double ovariectomy; multilocular cysts about forty pounds in weight; recovery.

—Mrs. Sarah Mc. was sent to me by Dr. James Graham. She was twenty-eight years of age, married, no children, and no miscarriages. She always menstruated regularly previous to this year; during this year she had bled two or three times each month. After postponing the operation once or twice in consequence of unexpected bleeding, the third time it was performed; though she bled on the night before and was bleeding during the operation. She had had no leucorrhœa, but little difficulty in micturition. No œdema in limbs or abdomen, no nausea, and no vomiting. She first noticed the tumor one year ago in the right iliac fossa, the abdominal enlargement was characteristic, the veins were enlarged, the wave was well transmitted, the uterus was small and anteverted.

Operation October 18, 1886; present Drs. J. C. Da Costa, Fisher, Graham, Koons, and Gardner. The abdomen had been prepared the day before with turpentine and mercury, the latter being still on. A two per cent. solution of carbolic acid was used on the sponges and instruments. The incision was four inches in length, there was some ascitic fluid in the abdominal cavity, the cyst was multilocular and had no adhesions. Its contents were quite gummy, preventing the use of the canula, the pedicle was short and belonged to the left ovary, it was tied with silk, severed and dropped.

Another cyst, springing from the right ovary and about eight inches in diameter, was found lying posterior to the first, it was also without adhesion and was removed in the same manner. The abdomen was cleansed with carbolic acid sponges and closed with silk as usual.

The stitches were removed on the fifth and sixth days, the bowels were

moved by enema on the eighth day. Her recovery was uninterrupted, the temperature never rising above 100° after the evening of the operation. The two cysts and their contents weighed about forty pounds.

The patient was able to walk about her room at the end of three weeks.

Large fibroma of the uterus. Removal of uterus and ovaries by abdominal section; death on the fourth day.—Mrs. S., aged thirty-two years, a patient of Drs. Skilling and MacOscar, of this city, had been ill for two years and had been bleeding for sixteen months. During the last six months she had never been free from bleeding more than a week at any one time, and during the last ten weeks, she stated, she had bled daily from two to sixteen ounces, the latter amount only after exertion; this confined her constantly to her bed or lounge. She had a good appetite, good digestion, and was well nourished though exceedingly blanched.

The diagnosis of large submucous fibroid was made when I first saw her, six months before, and full doses of ergot had been taken constantly during all that time, without effect.

At the time of operation, the enlarged uterus reached above the umbilicus, was perfectly smooth and regular in its outline and quite movable.

On December 9, 1886, with the assistance of Drs. J. C. Da Costa, Porter, Skilling and Fisher, the operation was performed. I made a long median incision from the pubes to some inches above the umbilicus; there were no adhesions. The uterus was readily elevated and a short "Thomas" clamp placed upon its neck.

After the broad ligaments had been tied and divided, the body of the uterus was removed about an inch above the clamp.

As the abdomen was quite deep and its walls quite thick, it was utterly impossible to bring the pedicle outside, a strong silk ligature was passed through the neck, below the clamp, and tied on each side.

When the clamp was removed the parts above the ligature were found to consist of uterine wall, enclosing a section of the tumor; on removing the latter the uterine walls required but

little attention to make very perfect flaps, they came together with tension and were held in position, with their peritoneal surfaces in close contact, by a continuous catgut suture. The toilette of the peritoneum was carefully made and the abdomen closed.

The uterus removed was about seven inches in diameter, and contained a submucous fibroid, attached to nearly the entire inner wall; in size and attachments it is nearly identical with one, also removed by abdominal section, which I presented to this Society some years ago.

The patient rallied well from the shock of the operation, and by the following day was quite cheerful, with good pulse and temperature, but she had secreted very little urine. On the third day some regurgitation of bloody fluid occurred from the stomach, the temperature increased and the urine was still scanty. There was no abdominal tenderness or distention. By evening delirium occurred, and death ensued the following day. The nurse assured me that only three ounces of urine had been secreted during the four days.

On post-mortem examination there were no evidences of peritonitis except slight adhesions of the bowel lying in contact with the uterine stump. The ureters and the bladder were uninjured, no bleeding had occurred, the uterine stump had remained well closed. The uterine wound was quite clean, no decomposing or offensive fluids were present. Some small portions of the very edges of the flaps looked as though they were beginning to slough, though very much less than I feared would happen when I ligated the neck. I think, in future, I shall content myself with ligating the arteries of supply and omit the ligation of the uterine neck.

Stricture of the ileo-cæcal valve; chronic obstruction of the bowels. Laparotomy; digital dilatation of the stricture; recovery.—Mrs. Ann H., aged thirty-seven years, a patient of Dr. D. S. Jones, of Plymouth, Pennsylvania, was admitted to the Jefferson Medical College Hospital in April, 1887. She had been in good health until the birth of a child in May, 1886. Since then she had had repeated and increas-

ing attacks of obstruction of the bowels, during which there were entire loss of appetite, obstinate constipation, constant vomiting, great abdominal pain and tenesmus, similar, she stated, to labor pains. Lately there had appeared at these times a tumor in the lower part of the abdomen, about the size of the adult fist; these attacks occurred about once a month, and as they lasted three weeks she had but a short interval of comfort between them. When free from the attack, she stated, that the tumor returned to the right iliac fossa, where she thought she could distinguish it by palpation and its tenderness on pressure. I was unable, however, to recognize, at this time, any unusual mass in this situation.

I kept her under observation until an attack should occur. On May 1 an attack began, and her sufferings fully verified her statements. The tumor appeared between the umbilicus and the pubes; it was about the size and very nearly the shape of the adult kidney.

On May 2, 1887, in the presence of Professors Gross, Parvin, Brinton and several other physicians, I made a median incision about four inches in length and exposed the mass; it proved to be an intussusception of the ileum into the colon with a thickened and contracted ileo-cæcal valve forming the apex of the intussusceptum.

There were slight adhesions between the contiguous layers of peritoneum covering the bowel, which were readily broken up, and the intussusception reduced.

On examining the ileo-cæcal valve by a finger invaginating a fold of the colon, it was found to be hard and contracted. A longitudinal incision was made in the colon about one inch in length, and three from the valve, through which I passed my finger and found the valve contracted to about the size of a crow's quill (one-fifth of an inch). It was slightly thickened, quite hard, white in color, and did not bleed during the examination or subsequent manipulations. It was considered by all present to be a case of cicatricial stenosis, due to some previous inflammatory action, and certainly not malignant. It was dilated, with considerable difficulty, by

the introduction of the little finger, the index finger was then carried through its entire length.

The wound in the bowel was closed by a continuous silk suture, including only the mucous membrane; the peritoneal mucous coats were brought in apposition by a continuous silk Lembert suture.

All the operative procedures upon the bowel were performed outside of the abdominal cavity, the abdominal wound being kept closed by sponges. The portion of bowel outside was thoroughly washed and returned, and the abdominal wound closed in the usual manner.

There was some vomiting after the operation, the patient was kept slightly under the influence of morphia for a few days, and on a milk and broth diet. The bowels opened naturally on the eighth day, the stitches were removed on the fifth and sixth days; the temperature never rose above 100°. She returned to her home entirely free from all her previous symptoms, and remained free for several months.

[Her subsequent history appears later in this paper.]

Obstruction of the pylorus. Digital dilatation by Loreta's method; death from exhaustion.—George H. German, aged fifty-eight years, a blacksmith. His health had always been good until the last year. At the time he came under my care he had the typical symptoms of complete pyloric obstruction, with a well-marked tumor at the usual situation; it was not very large nor hard, had no marked outlines, and presented the characters of pyloric thickening more than those of a malignant growth. The microscopical examination of the matters vomited gave no evidence of malignancy, and no vomiting of blood had occurred. He was greatly emaciated, and so feeble that at first I refused any operative interference; the operation had, however, been explained to him, and its performance promised before he came under my care, and he insisted so strongly on having a chance for prolonging his life that I consented.

The operation was performed at Jefferson Medical College Hospital, May 22, 1887, in the presence and with the

assistance of Professor Brinton, Dr. Wirgman, and quite a number of others.

As the patient's condition warranted no further interference than mere dilatation of the pyloric orifices, and as the usual incision to the right of the median line would have exposed the stomach nearer to the pyloric orifice (as shown by the position of the tumor) than I desired, I made the incision directly in the median line, and about three inches in length, beginning an inch and a half below the ensiform cartilage.

The stomach was readily exposed three inches from the pylorus. The examination of its exterior threw no new light on the character of the growth, though the stomach at this point was found to be slightly adherent to the structures beneath. An incision, a little over one inch in length and three inches from the pyloric orifice, was made in the stomach, parallel to and directly beneath the abdominal incision. The coats of the stomach were much thickened. Complete stenosis of the pyloric orifice was found when the finger was introduced, this was readily dilated with the little finger, while the tumor was supported outside the abdominal walls with the left hand. The orifice was then further dilated by the index finger.

The thickening and infiltration of the walls of the stomach at the point of incision, prevented the use of the Lembert suture, their softened condition evidently required the suture to pass through all the coats. As the abdominal wound was directly over that in the stomach, the latter was closed and brought in contact with the abdominal wound, so that the visceral and parietal peritoneum might adhere, and if any of the contents of the stomach should escape or any pus form, they might readily drain outside and not into the general peritoneal cavity. Fine silk with two needles were used, these were carried from within outward through all the coats of the stomach, one needle through each lip, then crossed and one brought through each lip of the abdominal wound, a few were carried directly without crossing. These sutures passing through both stomach and abdominal wound were brought together but lightly and the abdomen closed.

Nothing was given for the first twenty-four hours by the stomach, the rectal nourishment upon which he had relied previous to the operation being continued. No vomiting occurred during the four days that he lived. On the second day milk and hot water were given in small doses at regular intervals, and as they were well borne they were increased in quantity and frequency. Notwithstanding the fact that he took over a quart of milk per day, besides rectal nourishment, he sank and died exhausted on the fourth day after the operation. There had been no elevation of temperature.

At the autopsy the stomach was found firmly fastened to the abdominal wall; there was no evidence of any peritonitis. In the interior of the stomach it was difficult to find the point at which the incision had been made, the sutures being completely buried in the folds of the mucous membrane. The pyloric thickening was inflammatory in character, and not due to any malignant growth.

There was complete obstruction previous to the operation, there was none after, and had the patient been subjected to operative interference earlier there is no reason why his life might not have been greatly prolonged.

Ovarian tumor. Removal; recovery.

—Miss A., aged thirty-eight years, had noticed a painless abdominal enlargement for a few months. On examination I found a small ovarian cyst, lying in the median line and rising slightly above the umbilicus. On May 23, 1887, with the assistance of Drs. Da Costa, Edward Graham, Sweet and Fisher it was removed. The incision was about three inches in length, the tumor was non-adherent. It was tapped, drained, and removed in the usual manner; its pedicle was tied with silk and dropped.

The peritoneum was brought together with chromicized catgut, the interrupted silk suture being used for the other tissues. The patient made an uninterrupted recovery, her temperature never rising above 99°. The tumor weighed about fifteen pounds.

Two penetrating stab wounds, one puncturing the liver and one the transverse colon. Laparotomy; recovery.—Michael H., aged twenty-five years, was admitted to the Jefferson Medical Col-

lege Hospital at 3 P. M., of September 9, 1887. About three hours previously he had been stabbed twice with a small and pointed amputating knife, during a quarrel in a house of ill-fame.

There were two wounds, both penetrating the abdominal cavity, both at the outer edge of the right rectus muscle and both running diagonally toward the median line, and penetrating the peritoneum at that point. The upper was one and a quarter inches long and was just below the edge of the ribs, it terminated in the left lobe of the liver. From it there was free venous bleeding.

The lower wound was three-quarters of an inch long; it was three inches below the upper and just above the level of the umbilicus. After hurried antiseptic preparations, I opened the abdomen in the median line from the ensiform cartilage to the umbilicus, and found an opening about five-eighths of an inch in length in the transverse colon parallel to its length and near its mesenteric attachment; this was closed by the continuous silk Lembert suture. The suture failed to control a small artery in this wound, but a separate stitch carried under it and tied secured it.

The wound in the liver was small, it had ceased oozing, and as its lips were in fair contact no suture was used. The abdomen was cleansed, the wound closed and dressed in the usual manner.

The following morning his temperature was 101° and in the evening 100° ; after that, though it kept quite low, varying from $98\frac{1}{2}^{\circ}$ to $99\frac{1}{2}^{\circ}$, he had a sharp attack of peritonitis, lasting three days, during which time there was constant regurgitation of bloody fluid. The abdomen was painful and greatly distended with gas, requiring the constant use of the long rectal tube to relieve him. The stitches were removed on the fourth and fifth days, and the abdomen supported by adhesive plaster. He was discharged, cured, on September 29, having been in the hospital twenty days.

Epithelioma of the ileo-cæcal valve. Resection of three inches of intestine; recovery.—Mrs. H., aged thirty-eight years, the same patient whose ileo-cæcal valve was dilated seven months before (see preceding page), came complaining

of a return of her former symptoms, her sufferings were slight, but were evidently of the same character as before the first operation.

November 1, 1887, with the assistance of Drs. Allis, Kendig, Stillwell, and the resident staff, I again opened the abdomen. A straight incision parallel to the median line was made. It was three inches in length, terminating at a point one inch outside the middle of Poupart's ligament. The incision was made at this point as the nearest to the portion of bowel I wished to attack, because I feared adhesions might have formed after the last operation, rendering it inaccessible from any distant incision; and, further, if it became necessary to form an artificial anus, it would be a convenient point.

I had decided that if it should prove to be a recontraction of the stricture, to make a longitudinal incision about two inches in length carried through ileum, ileo-cæcal valve, and cæcum, bringing the two ends of the wound together and sewing it up transversely; this would best be made on what would be the under surface of the bowel when the patient stands erect. I tried this on the cadaver and found it practicable, and that it increased the circumference of the bowel, at that point, about two inches.

The head of the colon was readily found, there was no return of the intussusception, no adhesions had formed, though in reducing the intestine at the first operation there had been slight bleeding at a number of points where adhesions were torn. The scar of the original intestinal incision was scarcely perceptible. At the ileo-cæcal valve, however, there was now a decided tumor, and it was now evidently epitheliomatous.

An incision was carried into the mass, verifying the diagnosis. The entire valve had become an irregular mass of epitheliomatous tissue varying in thickness from half an inch to an inch, entirely obstructing the gut except an aperture in the centre, about one-third of an inch in diameter. The circumference of the valve was less thickened by the disease than the centre.

The abdominal wound was now closed by sponges, leaving the diseased parts

outside; three inches of the bowel, including the disease, were removed; no clamps were used, the bowels being held in the hands of an assistant; a few vessels were tied.

As the mortality is very high when the separated ends of the bowel, in these operations, are sewed together and returned, I had decided if it became necessary to excise, to establish a temporary artificial anus and begin at once the proceedings for its cure. With this end in view, immediately after the removal of the diseased bowel and the ligation of the bleeding vessels, one blade of Dupuytren's enterotome was introduced into each portion of bowel, viz., one into the ileum and one into the colon, the two blades were brought together and the screw run down firmly. A strong ligature was placed on the ends of the bowel, including the enterotome, to prevent the escape of feces during the subsequent manipulations. The bowel was washed, placed in position at the lower angle of the wound and fastened there with a continuous silk suture. The abdominal wound was closed, covered with cheese cloth saturated with mercurial solution, and this in turn with patent lint soaked in sweet oil. This is the best method that I have found to protect abdominal wounds close to an artificial anus.

The heavy ligature around the ends of the bowel was now removed. A ring of cotton soaked in oil was placed around the artificial anus, the outer extremity of the enterotome supported by oakum, and a wide bandage pinned over it.

Morphine was used hypodermically during the first forty-eight hours and then discontinued; vomiting occurred during the first two days and then ceased. Some feces appeared on the evening of the operation, and full quantities two days later.

On the eighth day the enterotome was found loose, and was removed; its removal was preceded by a passage of feces from the natural outlet. The stitches were removed on the third and fourth days, and the wound supported by adhesive plaster. After the removal of the clamp the patient was permitted to rise, and all restrictions removed from her diet.

The bowels acted naturally for a few times, when all the feces came again from the artificial anus. The clamp was again applied on the 17, and came away on the 28. Its removal was again followed by a few natural passages. As these ceased in a few days the clamp was applied for the third time with a precisely similar result.

As this had proved ineffectual, the method of Mr. Banks, of Liverpool, was used. A strong ligature was fastened to the middle of a heavy piece of rubber gas-tubing about six inches in length, one end of the tube was passed into one bowel, the other end of the tube into the other bowel, the middle of the tube pressing against the spur. The position of the bowel in this case was such that the rubber tube was retained with difficulty. After trying it for ten days without success, I substituted the apparatus which I here show, consisting of two pieces of very heavy rubber gas-tubing joined together like the letter **T**. The upper part of the **T** is about one and a half inches long, and presses directly against the spur; the other tube is three inches long, and merely serves to keep the first in position. The large base is circular, is three inches in diameter, and serves as a pad to prevent the escape of feces from the artificial anus. The three pieces of rubber are joined firmly by a strong wire running from the first to the last piece, and twisted tight. This method proved at once satisfactory, and a large proportion of the feces began at once to pass by the natural outlet, and continued to do so. The patient is now in the hospital, but I shall make no attempt to close the fistula until it is seen if the bowels will continue to act naturally.

During the prolonged treatment, fearing that the colon, from disuse, might contract, I directed that she should be given an injection of a quart of water daily, and I was surprised to hear that when a pint had been given it appeared at the artificial anus. By continuing these injections the capacity of the colon was rapidly increased, and when last tried it held three pints; of course when the bowels began to act naturally this was discontinued.

Chronic obstruction of the bowels by encephaloid tumor. Exploratory laparotomy; artificial anus established; recovery from the operation; death fourteen days later from obstructive peritonitis arising from tumor.—Francis O. B., aged thirty-eight years, Irish, carpet porter, a patient of Dr. James Robinson, with whom I saw him January 18, 1888. He was in perfect health until June, 1887, when he began to have slight cramps, once or twice daily, and occasionally at night, in the left iliac fossa. He continued working until December 24, 1887, and had been confined to bed since. His attacks had not increased greatly in severity, but he was getting much weaker. He had lost fifty pounds in weight; he vomited once or twice a week; it was not stercoaceous. He suffered greatly with tenesmus, which produced from ten to fifteen passages during the night, each being a small, hard, white mass about the size of a cherry.

The left iliac fossa was slightly tender. The abdomen was distended with gas. The pulse was 104, and the temperature normal. His pain was uninfluenced by food. He had never passed blood by the bowel. The rectum was found empty and unobstructed.

Later I removed him to Jefferson Medical College Hospital, by which time his pain was nearly constant, and he was unable to sleep without large doses of morphine. Some days after admission, his temperature increased to 103°; there was increased abdominal tenderness and other evidences of a slight attack of peritonitis, which disappeared in forty-eight hours. On the 28th he passed wind by the penis, and again on the 30th.

On January 30, 1888, with the assistance of Drs. Allis, Nancrede and Robinson, of the house staff, I opened the abdomen. A median incision about four inches in length was made, and a lobulated tumor the size of an orange was found in the angle between the bladder and the spine. The sigmoid flexure of the colon was tightly adherent to and partly buried in the tumor. The cæcum was carried toward the median line, and was also adherent to the tumor. The lower end of the ileum

was closely adherent, and its calibre nearly obliterated.

The colon was contracted and collapsed; the bowels above the point of obstruction in the ileum were greatly distended.

As nothing could be done with the growth, a fold of the ileum a few inches above the point of obstruction was brought out of the wound and fastened in its lower angle by a few silk sutures, a rubber drain was introduced, as a glass one failed to reach the desired point, and the abdomen closed. The drain was removed about twelve hours later, as I feared to have it remain in such close proximity to the artificial anus. Twenty-four hours after the operation the fold of bowel in the wound was opened, and the artificial anus established.

On the second day the patient was placed upon his usual food, stimulants, etc. The stitches were removed on the fourth and fifth days; the wound healed promptly. It was successfully kept from contamination by the fecal discharges, by the method described in a case reported above.

At the operation a fold of bowel was brought entirely out of the wound; this was adopted as a modification of the method of entirely cutting off the bowel, closing the lower end with sutures, and using the upper to form the artificial anus.

The method here adopted has the advantage of rapidity, and less danger of contaminating the cavity with fecal matter, as the opening of the bowel may be postponed until firm adhesions have formed. It permits any gases or other material that may be imprisoned in the lower bowel to escape, and quite as effectually prevents any material passing into the artificial anus into the lower bowel.

The patient was relieved of his pain, the vomiting ceased, and he slept well; had a fair appetite, and improved in appearance. All fecal discharges, and they were very copious, came from the artificial anus, and none by the natural outlet after the first twenty-four hours.

On the thirteenth day there was a slight elevation of temperature, and all fecal discharges suddenly ceased, injections of warm water carried some dis-

tance above the opening by a soft catheter were without effect; by evening vomiting and other symptoms of acute obstruction occurred, and he died twenty-four hours later, or fourteen days after the operation.

The post-mortem examination was made on the same day. The abdominal wound was solidly healed; the bowel at the artificial anus was firmly attached to the abdominal opening. The abdominal cavity contained quite a quantity of opaque serum; the opacity was greatest near the tumor, and on pressing the tumor, thick, purulent-looking fluid exuded from it. This was probably the origin of the fatal peritonitis. The bowels were but slightly congested, and at one point only, about twelve inches above the artificial anus, were adherent. The bowel at this point was sharply flexed upon itself, and adherent for about three inches, causing complete obstruction. This adhesion was readily broken down by the finger, and it would probably have yielded to an active saline.

The condition of the bowels, as found at the time of the operation, was verified, the tumor was broken down, and had ulcerated into the sigmoid flexure; a large number of secondary nodules were scattered through the liver. The microscopical examination was made by Dr. Longstreth; the tumor and the nodules from the liver were reported by him to be encephaloid.

THE USE OF ELECTRICITY IN THE DISEASES OF WOMEN (INCLUDING THE PRACTICE OF ELECTROLYSIS).

BY G. BETTON MASSEY, M.D.,

Physician to the Nervous Department of Howard Hospital, and late Electrotherapist to the Infirmary for Nervous Diseases.

(Continued from page 395.)

EXP. 7. Effect upon the current of different-sized electrodes.—Note the number of ma. passing through a part of the body from the full strength of fifteen cells—(1) when two small electrodes are used; (2) when two medium ones are used; (3) when two large ones are used—care being observed to place them in the same spots and press their whole surface in contact.

The increase of current when the larger electrodes are used is exceedingly striking. The cuticle, as has been explained, is the chief obstacle to the current; and from a given number of cells but a certain quantity can be forced through each square inch of its surface. The more square inches are included in the conducting surface, therefore, the more current will go through from the given number of cells; but there will be no increase in (and possibly a slight diminution of) the number of ma. passing through the original square inch of skin, unless the number of the cells is increased or the resistance of the controller lessened. The use of broad electrodes is indicated therefore whenever we wish to introduce a large current into the body with a minimum of pain, and without a special concentration at the points of entry. It is the only way to affect deep structures by percutaneous transmission without excessive pain; and for such purposes both electrodes are large. In gynecological work, where the effect of a single "active" pole is alone desired, the other "indifferent" pole is made sufficiently large to secure easy penetration without such local action.

EXP. 8. Comparison of the effect of the same current strength when concentrated and diffused.—Connect the body with the positive pole of the battery by means of a large moistened electrode on its surface. This will form the indifferent pole. Select (1) an equally large moistened electrode for the active pole; place it on another part of the body; connect it with the negative terminal of the battery, and bring the current up to, say, 8 ma., as shown in the meter. Note the slight pain produced. (2) Exchange the large active pole for a medium-sized one, moistened of course, and bring the current up to the 8 ma. The pain will be increased, owing to the concentrated action of the same number of ma. (3) Use next a fine point as active pole, well covered with moist cotton, and again bring up the current to 8 ma. The pain is quite decided.

As the size of the active pole is diminished, the current being kept the

same by adjusting the controller, there is an increase in the intensity of the pain corresponding to the increased density at this spot. The indifferent pole is left large in this experiment, as in so many gynecological operations, because it combines a slight resistance to the current with the least local pain. The experiment illustrates admirably the axiom that more force is required to get the same sized current through a small place than through a large one—a principle that applies self-evidently to most things.

Increase of pain accompanies with great certainty an increasing concentration of a given number of ma. on the skin surface; but it should not be forgotten that this is because of the peculiar sensibility with which the body sheath is endowed. Beneath it and in the interior of less sensitive cavities there is no such admonition to guide us; hence the use of a meter becomes more imperative in the latter situations, for the current is just as active whether pain is felt or not. It is only at and near the junction of mucous membrane with the skin surface, such as the lips, vulva, etc., that great sensitiveness to currents exists; and here it is even more sensitive than on the skin surface, in accordance with a fuller endowment of sensitive nerve filaments.

EXP. 9. *Differing resistances of skin surfaces.*—The differences in the resistance offered by the skin of various parts of the body, and of different persons, is readily shown by the effect on the meter at each position, the battery and controller being left undisturbed. The face, inner surface of the limbs, etc., will show more current (presenting less resistance); while the back and outer surfaces of the limbs will show less current (presenting more resistance), etc.

That these differences depend almost entirely on varying thicknesses of cuticle is proven by the showing of more current with the poles on distant but thin spots than when alongside of each other on thicker cuticle. The difference between corresponding parts of the skin of different individuals is also at times considerable, especially when a clear-skinned blonde and pallid brunette are compared.

EXP. 10. *Comparison of the resistance of skin and mucous membrane.*—Connect but a small number of cells, say fifteen, with the meter and controller, in order that the full strength of that number of cells may be used. Having put the indifferent pole on the abdomen or back, cover an insulated-stemmed vaginal electrode with absorbent cotton, wet it, and direct the subject of the experiment to hold it between the bare arm and chest in such a manner that the whole conducting surface is in contact, as it would be in the vagina. Turn the current on gradually now, by immersing the controller to its full extent, and note the number of ma. Reverse the controller until there is no current, and introduce the electrode into the vagina. The current may then be again increased by the controller to its full capacity, and the number of ma. noted in this situation.

A marked increase in the ma. will be noted in the vagino-abdominal circuit over the merely percutaneous one, on account of the lessened resistance encountered at the active pole when placed in contact with mucous membrane.

The actual performance of these and similar experiments is unequaled in its teaching power. Besides familiarizing one with the many details essential to successful work with the continuous current—such as the necessity for always using a meter; the possibility of avoiding shock, even with powerful currents; the advantage of ample battery force held in easy check by a controller; and the wisdom of using large or small electrodes as we wish non-local or local effects—it will show that the practice of electro-therapeutics, while relieved of many unnecessary and obsolete physical theories, may still remain free from the formidable task imposed by at least one recent writer, Engelmann, who recommends that the resistance of the tissues be calculated and recorded in the history of each case. As well might he say that we should measure the darkness in a room rather than the light produced in the effort to dispel it; and the measurement of darkness under the circumstances would be even more use-

ful, for we can readily assume that any two closed rooms are equally dark; while no two human bodies present exactly the same resistance, nor can electrodes be put on or within them twice under exactly similar conditions. Exactness of record is amply attained if the number of milliamperes is given, together with the name and dimensions of the active pole and the duration of the application.

Such experiments will also show the thoughtful student that a galvanic battery, or any other source of amperes or milliamperes of current, is a reservoir of this peculiar form of energy, and in giving it out obeys laws singularly analogous to those of the force stored in a reservoir of water. If we examine a stream of water issuing from a reservoir, we will find two qualities in it which it will be somewhat difficult to separate in the mind: pressure and volume. The former is the force by which water transports itself, and depends on the height of the water in the reservoir. It is the same in all pipes issuing from it, whether large or small. The volume of water carried by a pipe, on the other hand, depends on the size and length as well as on the pressure. In electricity, the peculiar force by which it transports itself is called electromotive force; and it likewise is independent of the size of the wire or the excellence of the conductor. It is measured in volts. In galvanic batteries, the number of volts of this "pressure" depends on the number and volt power of the cells when serially arranged (placed one after another).

The "volume" of the electric current is equally analogous to that of the water current, for it depends jointly on the height of the pressure (the number of the volts) and the size of the conductor (the diameter and length of the wire if a metal, and the conductivity breadth, etc., if a living compound). It is this result of the pressure through the resistance—this volume of the current—that is indicated by a metre. For medical purposes it is measured in milliamperes, or thousandths of the ampere—a unit that has been adopted for the measurement of the current volume.

HOSPITAL NOTES.

WILLS' EYE HOSPITAL.

SERVICE OF DR. H. E. GOODMAN.

Reported by H. E. Everett, A.M., M.D., Clinical Assistant.

A CASE OF FIBRO-SARCOMA OF THE ORBIT.

WILLIAM B., a native of this country, aged fifty-four years, a carpenter by occupation, first noticed two years ago a small "lump" on the lower lid of the left eye near the outer canthus. It became irritated through scratching with the finger nail. The tumor increased in size and ulcerated. It was not accompanied by pain at that time. The same condition continued, except that the ulceration slowly progressed until about five months ago, when a hemorrhage from the ulcerating surfaces occurred. The disease now spread rapidly outwards, and bleeding frequently occurred when the diseased tissues were touched. At this time, too, the vision of the left eye, which had been declining for some time, was entirely lost. There is no history of injury to the eye or its vicinity, and no cause can be assigned by the patient. There has been a profuse discharge of pus. The patient has never had trouble with the right eye. At eighteen years of age he had a small venereal sore, which was single, unaccompanied by inguinal enlargement and not followed by the secondary manifestations of syphilis. There is no family history of cancer. He has never had regular treatment for this disease. At the time of his applying at the clinic the vision was O. D. 20—xxx and O. S. nil. There was an irregular excavation extending from the outer canthus of the left side outwards and downwards about three-fourths of an inch and reaching to the periosteum which was exposed. The tissues surrounding the ulceration were greatly indurated and firmly adherent to the bone. There was no appearance of the globe, which was seemingly absent and replaced by a growth of a granular or nodulated formation. There was but little discharge of pus at that time, but a great tendency to bleeding and frequent sharp, cutting pains.

The patient was admitted to the house, and two weeks after his first appearance at the clinic an operation was performed. This consisted in the removal, under the influence of ether, of the entire contents of the orbit. The globe was found to be present, but had been pushed back by the growth extending in front of it. The incision included the lids and was carried well beyond the indurated edges of the ulceration. The actual cautery was applied at several points in the walls of the orbit where the disease seemed to have involved the periosteum. There was only moderate hemorrhage during the operation. The cavity was packed with lint charged with iodoform. Examination of the eye-ball after removal showed it to be apparently normal.

A microscopic examination of specimens of the tissue removed was made at the pathological laboratory of the Medico-Chirurgical College, and proved it to be fibro-sarcomatous in nature. The healing process was facilitated by the use of sponge-grafts at the instance of the interne, Dr. S. L. Ziegler.

Efforts will be made to keep the patient under observation in order to detect any indications of a return of the disease.

THE PHILADELPHIA CLINICS.

NEURALGIA.—DaCosta says the most satisfactory treatment of neuralgia of the fifth pair of nerves is with antipyrine, phosphorus and quinine. Where the teeth are decayed and most likely the cause, *tr. gelseminum* is the very best remedy in doses of *gt. iij-v* every hour until there is a little disturbance of vision (double vision). He also believes nerve-cutting gives only temporary relief, while excision is more permanent.

PARAPHIMOSIS.—In cases of paraphimosis with swelling so great as to prevent drawing the prepuce over the glans, Dr. Hearn remarks that if a little cloth or cotton saturated with glycerine be wrapped around the swollen part, the glycerine, on account of its affinity for water, will in an hour or two remove the effused serum so as to allow the prepuce to be easily drawn forward.

STRICTURE OF ŒSOPHAGUS DUE TO VARICOSE VEINS.—Dr. Wolff exhibited at his clinic at the German Hospital, a case of "varicose" œsophageal stricture near the cardiac orifice due to distension of the veins of this region, the result of beginning cirrhosis of the liver and portal congestion. Electrolysis was tried, but not pushed, on account of the danger of causing hemorrhage.

The stricture is too narrow to admit the passage of even a small rubber tube, and alimentation is supplied per rectum. Of course, a fatal termination is only a matter of time, and that rather short.

CHANCROID.—Bartholow declares most emphatically that there never was a greater mistake made than calling soft chancre non-infectious. He says, look out in five years for some nervous affection as a result.

QUICKSILVER HYPODERMICALLY.—In speaking about mercury, Bartholow says the "latest wrinkle" consists in throwing under the skin (with an appropriate syringe) metallic mercury, preceded by a hypodermic of sulphate of morphine. By this method you can have the mercurial impression in two or three days. An eminent syphilographer says that this method gives most excellent results. Bartholow also urges that if used at the first appearance of syphilitic manifestations this treatment will often suppress the second stage. He claims that he has had excellent results from the inhalation of the vapor of mercury in locomotor ataxia, and that there is hardly a nervous affection that is not paralleled by the action of mercury. He also says that *emplastrum ammoniaci cum hydrargyro* is the best dressing for buboes of the Hunterian variety of chancre.

CASES OF TYPHOID FEVER.—At the same time Dr. Wolff showed three cases of typhoid fever; one quite well, with the exception of weakness; another just entering on convalescence; and the third in the recipient stage. Here the glistening eye, the red tongue, with the still redder delta at the end, the tympanic stomach and the eruption on the abdomen, were all well marked.

Dr. Wolff's treatment in this disease is supporting and mainly that of non-interference; but when an antipyretic is needed, quinine is preferred.

AMPUTATION OF THE LEG.—Dr. White is in the habit of beveling the sharp anterior ridge of the tibia, after sawing that bone, in order to lessen the danger of having the tibia break through the thin anterior flap. He adopts antiseptic methods of dressing the stump.

ENCHONDROMA.—Dr. Roberts showed at the Polyclinic, a patient on whom he had operated two and one-half years ago for an enchondroma springing from the nasal septum and occluding the nostrils.

The left nostril now presented a peculiar cicatrix, shaped like a diaphragm and having a mere pin-hole in the center. Dr. Roberts cut away the diaphragm, and the patient once more breathed freely.

UNUNITED FRACTURE OF LEG.—Dr. Roberts dressed a case upon which he had operated a few days previously for ununited fracture of the tibia and the fibula. The ends were freshened, the lower fragments pushed over the upper and both pinned together—the tibial by a steel pin and the fibular by gut.

SALOL IN CHRONIC RHEUMATISM.—Dr. Cohen has had considerable success with salol in chronic rheumatism.

He has tried it in some fifteen cases lately, and in not one without giving benefit. He gives three to five grain doses, three or four times a day.

PHILADELPHIA HOSPITAL.—Dr. Walker says that a camphor stupe is much more pleasant than one of turpentine, and is generally as serviceable a method of employing moist heat for counter-irritation, especially in cases of glandular enlargement.

GALL-STONES.—For the treatment of persons subject to biliary calculi, Dr. Walker (Philadelphia Hospital) prefers phosphate of soda; a drachm three times a day for the first few days, perhaps, but afterwards a drachm or only half a drachm once a day, in a half tea-cup of hot water before breakfast.

TUMOR OF THE MAMMARY GLAND.—I know of but one absolute clinical diagnostic point between a "pseudo" tumor and a real tumor of the breast," said Dr. Nancrede, a few days ago at the Jefferson hospital. "Instead of grasping the tumor, or the supposed tumor, between your fingers, as is usually done, put your hand flat down and roll the breast over the ribs; a pseudo tumor will disappear under this handling." He related that a young woman who imagined that she had cancer, having found one of these common hardenings or pseudo tumors in the right breast, went to a rising surgeon, who promptly removed the breast. Shortly afterward she discovered a "cancer" in the other breast, but, fortunately for her, she consulted a different surgeon this time, and thus saved one breast at least.

At the same occasion Dr. Nancrede removed the left breast of a woman for cancer, and also enlarged the wound into the axillary space and took from there some fifteen or twenty involved glands.

HYSTERICAL URINE.—A short time ago there was brought to Dr. Sudduth for examination, a specimen of hysterical urine of an extraordinarily low specific gravity, 1.0005; and the urinometer came up even that one-half rather reluctantly.

The President has appointed Medical Director John M. Browne Surgeon-General of the Navy, to succeed Dr. F. M. Gunnell. Dr. Gunnell will be retired in November with the relative rank of Commodore. Surgeon-General Browne is one of the most distinguished officers in the Medical Corps of the Navy. He was surgeon to the Kearsarge in the memorable sea-fight with the Alabama, and about two years ago contributed a graphic account of the battle to the *Century Magazine*. He was for several years in charge of the National Museum of Hygiene, and was a member of the National Board of Health and of the original committee of invitation of the Ninth International Medical Congress. The appointment of Dr. Browne will give great satisfaction to all those who desire to see true merit appropriately rewarded.

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, APRIL 15, 1888.

EDITORIAL.

PROFESSIONAL HARMONY.

THE medical profession of this country is heartily tired of the petty strife which has prevailed during the past two years, and earnestly desires the return of peace. The Congress battle has been fought out; and though the rancor engendered by that memorable strife still lingers in the hearts of a few, the profession at large is almost a unit in favor of the restoration of harmony.

What, then, is the best way to assure this result and make it universal? Manifestly, the avoidance of needless irritation, of raking over old scores, and scrupulously refraining from everything which savors of proscription of those who asserted their independence by acting in accordance with their personal convictions.

Any attempt to ostracize the partisans on one side in the conflict, or to push forward those who rendered themselves particularly obnoxious to their opponents upon the other, can only signify an intention of continuing the strife.

Medical leaders in the neighboring metropolis have been wise enough to appreciate this, and we rarely see any allusion in their journals to the late misunderstanding. Meanwhile the recent great development of New York as a centre of medical teaching shows that her energetic citizens are as wide awake in matters medical as in ordinary business affairs.

In Philadelphia, we regret to say, things are in a less satisfactory condition. While there has been some ex-

pression on the part of individuals who were opposed to the Congress in favor of restoring harmony in the American Medical Association (in which they are hopelessly in the minority), there is no evidence of change of heart in our County medical society. The lists of delegates selected for coming meetings of the State medical society and the National Association are strongly Anti-Congress. This can scarcely be the result of accident; and as long as such a spirit of discrimination is manifested, true harmony is out of the question. The injury which such a spirit inflicts upon a body whose aims should be simply scientific may be seen in the marked decrease in the attendance upon the meetings of our County medical society.

Men who pose as leaders of professional opinion should be broad in their views, and they should have the administrative capacity which enables them to bind masses of men together by sinking minor differences and dwelling upon the great principles upon which many can unite. In our opinion, sending a solid Anti-Congress delegation to Cincinnati will hardly do much to secure permanent harmony. They greatly misjudge the intelligence and the loyalty of the South and West who suppose that a specious appeal for harmony will be received with favor in the American Medical Association, from societies which are doing their utmost to prolong the schism and to proscrib Association supporters.

If ever there were a time when scheming and wire-pulling ought to give place to frank and open fair-dealing, it is now. We make this appeal to the dominant party at home: Let the quarrel drop; retire the men who insist on keeping the strife going; make the delegation to Cincinnati fairly representative of the parties here, and put

in it men who can, and desire to, be harmonious with each other.

The approaching meeting of the State Medical Society, with its social features, might be made to do very much to efface the old scores, and give a renewed impetus to the efforts to restore to this city the preëminence in medical teaching which the events of the last year have done so much to impair.

W. F. W.

The College of Physicians and Surgeons of New York has over 800 students; the University of New York over 700; Bellevue, and the other New York medical colleges, bring the number of medical students in that city up to between 2,500 and 3,000.

In Philadelphia our alleged medical leaders are too busy with their local squabbles to look after the prestige of our city as a medical centre.

THE ASSOCIATION OF MEDICAL EDITORS will meet in Cincinnati, as usual, on the night preceding the session of the American Medical Association, on Monday evening, at 8 o'clock, May 7. The evening will be devoted to the delivery of the address of the President, Dr. Wm. Porter, of St. Louis, and to the discussion of appropriate topics. Arrangements will be made, if desired, for a Press Dinner, later in the week. It was not thought advisable to attempt to have the dinner and transact the business of the Association all in one evening.

We have made arrangements to publish a series of papers upon "The use of Electricity in Diseases of Women," the first of which appeared in the preceding issue. Dr. G. Betton Massey has devoted especial attention to the study of the practical applications of electricity, and has enjoyed exceptional opportunities for clinical investigations. He also has the ability to express himself clearly upon a subject that has been rendered unnecessarily confusing to students.

NOTES FROM SPECIAL CORRESPONDENTS.

LETTER FROM PARIS.

PROFESSOR Germain Sée has been troubled lately by an attack on antipyrine, written by an English physician who practises in Paris, appearing in the London *Lancet*, entitled "On Poisoning by Antipyrine," in which he related a case of an old lady who had a pulse of thirty-four, and who, it seems, was slightly affected by antipyrine, which gave her some oppression. M. Ball presented the matter to the Academy of Medicine here, and as it caused some talk, Professor Germain Sée caused an investigation to be made of all the facts that have been reported in every language against antipyrine, with the result that he can only find seven cases in all in which slight inconvenience had resulted from the administration of the drug, including several reported in America. None of these cases was of a serious character. As far as known he declared that antipyrine has not been the cause of a single death. A case was reported in Lausanne, Switzerland, but on investigation it was found to be a patient who certainly had died, but he was in the last stages of phthisis, and had besides an acute pleurisy. It is a pity that practitioners should report single cases in which any drug has caused inconvenience, particularly when the patient has a very weak pulse or is in the last stages of some acute fever, like typhoid, etc. How many valuable drugs are there, such as the iodides, that now and then cause slight symptoms in certain persons. It would indeed be a great shame if the new and valuable antipyrine should be prevented from relieving pain, as it has done for thousands since Dr. Germain Sée showed its powerful analgesic properties. As Professor Sée very aptly remarks, it is like the millions of people who eat mussels and other shell-fish in Europe, now and then one of them gets a little rash or has his stomach disturbed, but that is no reason to give up eating what to many is a source of great delight. So that the present opposition to antipyrine, at least, ends in smoke. One of the latest results obtained by antipyrine

is in confinement, and it looks as though the new drug is going to reverse the old dictum that women must bear children in pain. M. Queirel has been using antipyrine in 0.25 centigramme doses by hypodermic injection in all the periods of parturition, and finds that it prevents pain. If one injection was not enough, another given two hours later was always successful. As a rule the effect takes place within twenty minutes. It has no bad influence on the labor nor on the deliverance of the placenta. During dilatation of the os uteri it is extremely valuable, the woman hardly feels any pain and the dilatation proceeds just as well. Indeed, he says, that the drug seems to help rather than retard the labor. There is no contra-indication to the use of antipyrine in labor.

Dr. Germain Sée is at present experimenting on a new reagent called phloroglucine vanilline, to detect hydrochloric acid in the stomach secretions; it promises to prove of signal service in the diagnosis of stomach diseases.

The Third French Surgical Congress is now being held here under the presidency of Professor Verneuil. There is a large attendance of surgeons from all over Europe. M. Verneuil in opening the session, said that he would like first to say a few words in reply to the reproach that Billroth, of Vienna, had cast on French surgery (which we reported in this journal some months ago). M. Verneuil had looked over M. Billroth's works and he failed to find any reference to past French surgeons who had done so much for the art, and he concludes, that Dr. Billroth is not acquainted with their work, and it is mostly for that reason that he fails to appreciate it. M. Verneuil could not say the same for Herr Billroth's work; they knew it well, and had translated it twice for the edification of French surgeons, but they did not care to follow that great master in such perilous operations as resections of the pharynx, the stomach, etc., nor did they care to open the last organ as a preliminary operation to dilating the pylorus; they also hesitated to hunt for gummy tumors in the depths of the cerebral hemispheres. The tendency now is rather towards conservative surgery in France,

where all the therapeutical medication possible was employed, and most often they tried to base the treatment on the etiology, the pathogeny, the nature and the forms, as well as the degree of the malady; they tried to break down the barriers between medicine and surgery, and to employ those operations that were most easy to execute and least perilous for the patient; to be eclectic, in fact, and to accept all good therapeutical methods; with the expressed conditions, however, that the frequent cases and the rare ones are to be carefully determined, and that no operations be done by chance methods or merely to follow up a series. Finally, said Verneuil, we try to determine the right moment to operate, its contra-indications, and to prepare the patient by a *properly instituted therapeutical treatment before the operation*. With these means French surgery hopes to have saved many patients, even if its name has not gone abroad as having cut out a lung or two, or having tied the basilar artery. We have at least saved life and health to many

Several surgeons, including M. Demons, of Bordeaux, followed with their experience of *extirpation of the larynx*. As the rule, it is admitted that most patients in whom this hardy operation is performed die soon afterwards, either from the operation itself or from the return of the cancer, for which it is usually done. M. Verneuil does not approve of the operation at all, but M. Demons, Dupont, of Lausanne, and Mollière, of Lyons, had each a successful case to tell about of men from whom they had taken out the larynx, and yet were still living and in fair health; one of them, if not two, being able to express themselves by a sound similar to the voice. M. Demon's case has now for ten months been going about without a larynx. This surgeon thinks that it is better to operate than to leave these poor patients to suffer a few weeks longer from great pain, after having a tracheotomy performed and when the epithelioma is limited to the larynx. It does seem, with modern antiseptic methods of operation, to give the patient a new lease on life, and it is possible that the larynx itself may, as it were, contain in a box all the trouble, and that if taken

away it may not return. Dr. Péan has a case in Paris of the kind, that has now been several years since the operation in good health. Most of the French surgeons use the canula invented by Trendelenburg, but M. Dupont thinks that it drops out easily when the patient coughs, so that in a recent operation he divided the trachea, and having dissected its lower end he fixed it by turning it in the lower end of the wound, so that the opening into the respiratory tract was kept away from the field of the operation, and no canula was needed.

A long discussion on the *treatment of wounds by firearms* when the wound is in the viscera, followed. The speech of Professor Reclus was greatly applauded. He opposed the idea which most obtains in America of doing a laparotomy every time such a wound of the abdomen is met with. He admits with the American surgeons that there is rarely or ever any penetrating wound of the abdomen without a wound of the intestines following, but he advises the treatment which may be called *armed neutrality*, that is, he makes compression on the belly, gives opium, and no food but iced milk, and if peritonitis still seems imminent, he then operates by a complete and long search of the intestines themselves and the abdominal cavity.

M. Thiriar, of Brussels, spoke on *cholecystectomy*; he had presented three successful cases some three years ago at the first meeting of the surgical congress, by which the patients were delivered of their horrible attacks of hepatic colic; and he said that this operation is now looked upon by most intelligent physicians as about the only means of sure relief from this form of colic, when it is certain that the calculus exists. It is all very well to give Vichy water and injections of opium and antipyrine to calm the pain, but the cause remains. The gall-bladder is almost always partly full of stones that are ready to pass down the cystic duct into the common choledochus duct and set up the awful pains of hepatic colic. It is, of course, important that the patient should pass the stools through a sieve and find the biliary stones, so that the diagnosis will be certain. M. Thiriar operates as follows: He makes an in-

cision on the external border of the rectus abdominalis muscle, he then cuts it transversely about three to four centimetres, and pushing back the ascending colon he finds the gall-bladder in a sort of sulcus between the liver and the duodenum, and usually there are adhesences on all sides, so that he is obliged to dissect with care, for the duodenum is often very thin. Once the gall-bladder is free he makes a ligature around the cystic duct and separates the gall-bladder and takes it out completely, leaving the ductus communis choledochus to carry the bile current. Cure follows rapidly, and a complete disappearance of pain is the result of this not very difficult operation. Dr. T. gave statistics to prove that this operation gives 90 per cent. of cures.

But what may interest American surgeons more than the Congress (as they are given the credit of spaying more women than the surgeons of other countries) is the study that M. Lucas-Championnière has just made of the reflex troubles that come on after operations on the uterus, ovaries and fallopian tubes. M. Lucas-Championnière, had made eight such operations this winter and he gave an account of the after troubles in his patients. Four of the operations were for ovarian cysts; one was a laparotomy for a strangulation, two were ablations for ovaralgia, and one hysterectomy. He said that the reflex troubles were often not taken into account, and yet they had a great deal to do with the deaths which are so often registered as from shock, etc., when indeed they resulted from these pathological reflexes, which have not as yet been studied by the surgeons making such operations. Even such men as Spencer Wells, Lawson Tait, and others, pass this very important matter over in their works. Those, however, who observe closely will see, as they do in obstetrics, a number of reflex actions that belong to the same family after these operations, as well as during and after labor. The gravity of these reflex troubles augment in proportion to the number of the nervous plexuses that are irritated. This can be demonstrated by noting the wakening of the patient when the pedicle is drawn upon, when a sus-

pension of the respiration will be observed, and smallness of the pulse, etc. But there are other troubles seen after the operation. Nervous disturbances then are often difficult to distinguish from shock. The important reflex actions noticed after some days, when the chloroform can no longer be blamed, are small compressible pulse and vomiting, which is often thought to depend on septic peritonitis when it is not as yet lit up, but simply depends on the reflex action. The most important sign on which Dr. Lucas-Championnière relies to indicate the outset of these reflex troubles is a *desire to spit out something*, that seems to the patients to be a sort of catarrh of the pharynx, but which is only a reflex; this sign is considered to be pathognomic.

The same reflex can be seen during the first months of pregnancy. When this desire to spit up something is seen after such operations and no catarrhal troubles accompany it, it can be certified that it arises from a reflex that should be treated, or it will lead to serious results bringing on vomiting and inducing peritonitis. It is most likely due to excitation of the nerves that surround the uterus, that are compressed or that have been incompletely destroyed during the operation. In one of his patients, Dr. C. observed a swelling of the breast with appearance of a little milk in the gland some days after the ablation of the uterus. Morphine is the treatment, and it will often prevent peritonitis if given in time, but many of these nervous patients cannot take it well after the operation, so that it should be given to them beforehand, so as to accustom them to the use of it afterwards. If it fails, use bromide of potassium, and rectal injections of chloral.

Europe moves slowly; Paris has just adopted the American city ambulance system. Some few of them are to be put in use here next month as a trial to see if they will do.

Professor Lusk, of New York, has just been named corresponding member to the Paris *Académie de Médecine*. This is a well-deserved honor to an American author and teacher.

THOMAS LINN, M. D.

Paris, March 14, 1888.

ABSTRACTS AND NEW REMEDIES.

CHANGES OF THE FIELD OF VISION IN MENSTRUATION. — Dr. Finkelstein (*O. R.*, vol. vi) has studied the functional activity of the eye during menstruation in twenty healthy women, aged from nineteen to thirty-three. From this group of observations the following deductions may be drawn: 1. During the menstrual period there takes place a concentric narrowing of the field of vision. 2. The phenomenon makes its appearance one, two, or three days before the beginning of the hemorrhage; reaches its greatest intensity on the third or fourth day of menstruation, and then gradually disappears about the seventh or eighth day of the period. 3. The narrowing varies in degree in individual cases; in general it is more pronounced in those women whose menstruation is associated with malaise, headache, cardiac palpitation, and other nervous symptoms, as well as in those who lose large quantities of blood. 4. Not only the field of vision for white, but also the visual fields for green, red, yellow and blue undergo a regular diminution. 5. Perversion of perception of green (which is then seen yellow) is observed fairly often (in twenty per cent.), the phenomenon disappearing simultaneously with the contraction of the fields. 6. The central vision becomes impaired but slightly, to rapidly return to the standard after the catamenia. 7. Refraction remains intact. — *Dublin Jour. Med. Sciences*, January, 1888.

OIL OF PUMILIO PINE. — Prosser James, in the *Lancet*, recommends this oil as a very mild stimulant to the mucous membrane and an agreeable remedy for inhalation, in relaxation, congestion and chronic catarrhal affections of the respiratory tract. It is also an excellent addition to other inhalations, disguising the color of some and imparting its own fragrance to others. Internally, the dose is one to five minims, administered like other volatile oils. It acts on the stomach as a carminative, is quickly absorbed, and probably acts in the body like other terebinthines. It is eliminated chiefly by the lungs, kidneys and skin.

To the bronchial mucous membrane during excretion it is stimulant, expectorant and disinfectant; hence indicated in chronic bronchitis, bronchiectasis, bronchorrhœa, some states of phthisis, etc. Small doses seem diuretic, but its use in urinary diseases requires care.

Externally, sprinkled on spongopiline, the oil is a useful irritant, perhaps slightly anæsthetic.

This oil is the most potent agent in the "pine cure" at Reichenhall and other German spas.

For inhalation, the oil should be diffused through water by means of magnesia.

WASHING OUT THE KIDNEY AND URETERS THROUGH THE BLADDER.—In the normal condition, the mode in which the ureters enter the bladder is such as to render sudden regurgitation of fluids wellnigh impossible. In cases of long standing stricture and prostatic obstruction, however, we see this provision gradually destroyed, until the ureters and pelvis of the kidney become little else than subsidiary reservoirs for urine. Again, in other instances the valve-like arrangement which prevents fluid passing along the ureters in any other than a downward direction is liable to be deranged by the passage of calculi and suppurative debris, as we so frequently see in tubercular disease of the kidney. With conditions like these, it occurred to me that fluid might be made to pass from the bladder along the ureters to the pelvis of the kidney, and this observation has suggested some trials in practice which I think are worthy of notice.

I have, in a previous communication, alluded to a case where, I believe, a calculus was dislodged from the ureter by distending the bladder with fluid, and thus causing a back flow along the canal, which would tend to dilate the portion below the stone and cause some movement of the obstruction. That the ureter was dilated I thought probable, because the patient had already passed kidney stones and suffered from renal colic. Whether the escape of the calculus was connected with the injection into the bladder it is impossible to say; but I thought the coincidence suggestive.

Take another instance. A middle-aged man was under my observation for acute renal pain and hæmaturia, due to a stone in his left kidney. The symptoms continued in spite of a variety of attempts to dislodge the calculus. I suggested nephrotomy, but the patient would not consent. Shortly after this the position of the pain changed, and I had reason to believe that the stone had made its way into the ureter. Shampooing of the side, friction and other means were tried; but without benefit. I then resolved to try fluid distension of the ureter. After washing out the bladder, I filled it with tepid water, upon which pressure was exercised by the evacuator usually employed in lithotripsy. The patient observed, "I can feel something moving in my back." On examining the glass receiver of the aspirator bottle after a few manipulations, I found that it contained about half a teaspoonful of phosphates and urates, in small pieces, not crystals. These were found to be portions of a calculus. Wherever they may have come from, it was clearly not from the bladder. This process was repeated in a fortnight with similar results, care being taken to first empty the bladder of anything it might contain.

A second case, very similar to the last, is now under observation, where the proceeding was followed by the withdrawal in this way of a small teaspoonful of fragments of a urate stone.

When we take clinical facts such as these and compare them with pathological specimens where an open ureter ultimately induced a calculous pyelitis, I do not think we can deny the possibility, under certain circumstances, of our being able to distend a ureter with fluid, and thus to reach the pelvis of the kidney. When we consider that most urate stones are formed in the kidney, and grow, as it were, by reason of their being accidentally trapped in the bladder, the importance of securing their discharge in the earliest periods of their formation must be obvious. Further, the practice I have thus endeavored to illustrate may be found useful in facilitating the discharge of inflammatory products from the kidney, and as a means of direct medica-

tion in cases of hæmaturia generally considered beyond the reach of surgical manipulation.—REGINALD HARRISON in the *Lancet*.

KEFIR is the name of a koumiss, or milk wine, made with the aid of a peculiar ferment, obtained from the Caucasus. On account of its possessing a certain proportion of alcohol and carbonic acid, it is acceptable to delicate stomachs. As a food it has high value, and may be used in anæmia, in phthisis, and in many disorders of the digestive apparatus or nervous system, and in all conditions attended by denutrition. An institution has been established in Berlin (*Erste Kaukasische Kefir-Anstalt*), which will send the ferment, with directions for manufacture and use of this agent, to all parts of the world.

REVIEWS AND BOOK NOTICES.

THE RECTUM AND ANUS. By CHARLES B. BALL, F.R.C.S. Lea Brothers & Co., Publishers, 1888. 12mo, 400 pages.

The monograph before us is a neat manual on rectal diseases. The subject is discussed in a scientific manner, and although no new methods or instruments are presented by the writer, yet as a compilation of all that has been written on the subject, the book is well worth the price asked for it. The bibliography consists of upwards of two hundred and fifty names; abstracts and quotation marks are numerous. A serious fault, we think, is shown in the little attention that is given to antiseptic surgery. The first eighteen pages are devoted to diagnosis; then twenty-nine pages to malformations; followed by two hundred pages on the well known inflammatory conditions relating directly to the rectum and anus, such as proctitis, fistulæ, fissures, hæmorrhoids, etc., including their treatment. A chapter on tumors of the rectum is followed by about a hundred pages of general matters relating to the subject. The writer has departed from the customary forms of works on rectal diseases in that he has not filled up the pages with citation of cases, but

has given us a really scientific treatise on the diseases of which he treats.

QUESTIONS AND ANSWERS ON THE ESSENTIALS OF PHYSIOLOGY. Prepared especially for students of medicine. By H. A. HARE, B. L., M. D., (University of Penna.) With illustrations. Philadelphia, W. B. Saunders, 1888.

For students who wish an elementary hand-book as an introduction to the regular text-books this little work will commend itself. It is arranged in a series of questions and answers, devised to bring special points to the attention of the reader, and to aid this it contains several illustrations.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

A CASE FOR DIAGNOSIS.

Editors MEDICAL TIMES:

Miss W. R., aged 25, tall, light complexion, gray eyes, tolerably good constitution, had an attack of "fever with inflammation of the stomach" (so the doctor said), ten months ago; was confined to bed several weeks; then gradually improved until she could walk about in the house and in the yard. At this time I saw her (three months after the first attack), and she gave me the following history of her case: She could eat nothing at all without spitting up all or part of it, pain in stomach all the time, and quite severe at times. She ate extremely little, and always "spit up" part of that. She never had hæmorrhage from the stomach or bowels; never spit up thick mucus; never suffered much worse after eating; never vomited freely, would only belch and spit up food; never received any benefit from any treatment. She had taken pepsin, lacto-peptin, ingluvin, bismuth

charcoal, magnesia, lime water and milk, nux vomica, hydrastis, glycerine, iron, quinine, rhubarb, blisters over stomach, etc., etc. Had taken almost everything usually given for dyspepsia; *nothing had helped her in any way that she could tell*. At this time she began to take nitrate of silver and opium, and this helped her stomach a little. The pain was not less severe, but it only came at intervals; did not last all the time, as it did before taking the silver. Fearing she would "turn blue," we stopped the silver, gave papoid (by Johnson & Johnson), but it had no effect at all that we could tell. Gave fld. ext. rhubarb, vin. ipec., carb. of potas., water—as recommended in *The World* for dyspepsia—but it had no effect at all. I forgot to say that she had a tongue almost always free from coating indicating acid or bile. Tongue always seemed perfectly clean and natural. Weighs, since taking silver, 130 pounds—had not weighed before since first attack nearly as much as she generally weighed in health. Bowels generally rather constipated, but not always; sometimes she has symptoms of diarrhœa, and when this is the case six drops of paregoric will check the bowels. She has her monthly periods naturally, but sometimes the time is delayed five or ten days. She has "whites" for a few days after menses cease, but this is not very severe. No ulceration or displacement about uterus. Suffers with very severe pain in back and womb at menstrual period, but not much worse than she always has. Drinks very little fluid of any kind; mild wine, hot coffee or tea, anything very strong, seems to hurt the stomach, but ordinary food does not. She is very easily chilled; has rigors when she gets very cold. Feet and hands generally cold; circulation seems rather feeble. Seldom has much appetite. She is very nervous; jumps when she hears a door slam, or any other sudden noise. Never laced. She is *very* cheerful nearly all the time, but occasionally she is very despondent for a few hours. She has taken no silver for two months and a half. For a month she has been taking a pill composed of myrrh, sulphate of iron, and aloes, equal parts, with about $\frac{1}{2}$ gr. of ext. nux vomica in each pill. This has done her more good than anything, ex-

cept the nitrate of silver. She does not spit up now more than half the time, but pain in the stomach is no better than it was when she quit taking the silver. She has it every two or three days; sometimes seems to suffer very much, but 10 or 15 grs. bismuth (subnitrate), with about $\frac{1}{4}$ gr. of morphine, always relieves the pain. Never seems to be very much acid in stomach. Very often has pain in bowels, generally on right side, rather lower than liver; but she sometimes has pains in muscles of arms, back, etc. The severest pain *always* is in stomach—pain *all over region of stomach*—not confined to one spot. *When she lies down after eating, never spits up until she gets up*. It is the same if she lies down *half an hour or half a day*. When she gets up she *spits up*, until recently, since she began the iron, myrrh, aloes and nux. I always have her keep her bed half an hour after eating. She can sit up all day, and walk around almost as if she were well; rows about by herself in a boat on a fish pond near the house.

C. K.

[The above reported case is a very interesting one and offers room for several explanations. In the first place, when a woman is sick it is not a question of whether or not she has hysteria, but of *how much* hysteria there is in the case. The spitting in this case has a hysterical look, but may be largely of reflex origin. It is possible that there is dilatation of the lower portion of the œsophagus forming an accidental stomach, like the proventriculum of mammals. The pain may be due to pressure upon the branches of the cardiac plexus of nerves in this vicinity, or may be due to primary or secondary organic change in the stomach (possibly malignant, but not likely). The treatment by lavage and gavage as practiced by Debove,* would be very useful in this case, combined with electricity.

F. W.

Brouardel says that the victims of rape are generally wanting in intellect, and illy developed in body. They are scrofulous, stunted, with ocular defects, deaf, idiotic, etc.—*Gazette de Gynécologie*.

*See Dr. Carpenter's clinic, page 111, *ante*, for details of this method.

MISCELLANY.

DINNER TO PROFESSOR D.
HAYES AGNEW, M. D.

The Semi-Centennial celebration of the doctorate of Prof. Agnew, was held April 6th, 1888, at the Academy of Music, Philadelphia, on which occasion some three-hundred professional friends tendered him a dinner. The principal feature of the occasion was the reading of the following poem, by S. Weir Mitchell:

MINERVA MEDICA.

Read at the Dinner commemorative of the Fiftieth Year of the Doctorate of D. Hayes Agnew, M. D., April 6, 1888.

Good chairman, brothers, friends and guests,
All ye who come with praise
To honor for our ancient guild a life of blameless days,
If from the well-worn road of toil I step aside to find
A poet's roses for the wreath your kindly wishes bind,
At twelve the treasurer fell asleep, the wakeful censors slumbered,
The secretary's minutes grew to hours quite unnumbered.
At 6 A. M. that Fellow paused, perchance a page to turn,
And up I got, and cried, "I move the College do adjourn."
They didn't, sir; they sat all day. It made my flesh to creep.
All night they sat; that couldn't be. Goodness! was I asleep?
Was I asleep? With less effect that Fellow might have tried
Codeia, Morphia, Urethan, Chloral, Paraldehyde.
In vain my servant called aloud, "Sir, here's a solemn letter
To say they want a song from you, for lack of some one better.

A moment more, my head fell back, my eyelids closed,
And on my lap that Fellow's book at equal peace reposed.
Then I remembered me the night that essay first was read,
And how we thought it couldn't all have come from one man's head.
At nine the college heard a snore and saw the chairman start,
A snore as of an actor shy rehearsing for his part.
At ten a shameless chorus around the hall had run,
The chairman dreamed a feeble joke, and said the noes had won.
Be certain that their fragrance types, amid your laurel leaves,
The gentle love a tender heart in duty's chaplet weaves.

I can't exactly set the date—the chairman he will know—

But it was on a chilly night, some month or two ago.

Within, the back-log warmed my toes; without, the frozen rain,
Storm-driven by the angry wind, clashed on my window pane.

I lit a pipe, stirred up the fire, and, dry with thirst for knowledge,

Plunged headlong in an essay by a Fellow of the College.

But, sir, I've often seen of late that this especial thirst

Is not of all the varied forms the keenest nor the worst.

At all events, that gentleman—that pleasant College Fellow—

He must have been of all of us the juiciest and most mellow.

You ask his name, degree and fame; you want to know that rare man?

It wasn't you—nor you—nor you;—no, sir, 'twas not the chairman!

For minutes ten I drank of him, quenched was my ardent thirst,

Another minute, and my veins with knowledge, sir, had burst;

The Chairman says his man will wait while you sit down and write;

He says he's not in any haste, and make it something light;

He says you needn't vex yourself to try to be effulgent,

Because, he says, champagne enough will keep them all indulgent."

I slept—at least I think I slept—an hour by estimation,

But, if I slept, I must have had unconscious cerebration;

For on my desk, the morrow morn, I found this ordered verse:

Pray take it as you take your wife—for better or for worse."

A golden wedding; fifty earnest years

This spring-tide day from that do sadly part,
When, 'mid a learned throng, one shy, grave lad,

Half conscious, won the Mistress of our Art.

Still at his side the tranquil goddess stood,
Unseen of men, and claimed the student boy,

Touched with her cool sweet lips his ruddy cheek,

And bade him follow her through grief and joy.

"Be mine," she whispered in his startled ear,

"Be mine to-day, as Paré once was mine;

Like Hunter mine, and all who nobly won

The fadeless honors of that shining line.

"Be mine," she said, "the calm of honest eyes,

The steadfast forehead, and the constant soul,

Mine the firm heart on simple duty bent,

And mine the manly gift of self-control.

"Not in my service is the harvest won

That gilds the child of barter and of trades;

That steady hand, that ever-pitying touch,

Not in my helping shall be thus repaid.

"But I will take you where the great have gone,

And I will set your feet in honor's ways;
Friends I will give, and length of crowded years,
And crown your manhood with a nation's praise.

"These will I give, and more; the poor man's home,

The anguished sufferer in the clutch of pain,
The camp, the field, the long, sad, waiting ward,
Watch for your kindly face, nor watch in vain;

"For, as the sculptor years shall chisel deep
The lines of pity 'neath the brow of thought,
Below your whitening hair the hurt shall read
How well you learned what I my best have taught."

The busy footsteps of your toiling stand
Upon the noisy century's sharp divide,
And at your side, to-night I see her still,
The gracious woman, strong and tender-eyed.

O stately Mistress of our sacred Art,
Changeless and beautiful and wise and brave,
Full fifty years have gone since first your lips
To noblest uses pledged that forehead grave.

As round the board our merry glasses rang,
His golden-wedding chimes I heard to-night;
We know its offspring; in a hundred towns
His pupil children bless his living light.

What be the marriage gifts that we can give?
What lacks he that on well-used years attends?

All that we have to give are his to-day,—
Love, honor and obedience—troops of friends.

S. WEIR MITCHELL.

ADDRESS BY DR. J. M. DA COSTA.

At the Dinner given Friday, April 6, 1888, to
DR. D. HAYES AGNEW,
by the Medical Profession, in honor of the
Fiftieth Anniversary of his entrance
into the Profession.

FIFTY years ago, on this very day, there stood, with the honors of a University just received, a young man on the threshold of his life. His thoughts were the pleasant ones of the occasion, his aspirations had hardly taken shape; he was the popular comrade of the hundred and fifty-five whose real life, like his own, was to begin. Fifty years have passed, and their Agnew has become our Agnew of the many thousands of the American profession.

HONORED GUEST:—In addressing you to-night I feel that I speak not simply for those who are gathered around you;

nor for those in this Commonwealth whose interest will centre here; but for the whole profession who hold you in such esteem, and whose sympathetic thoughts, could they reach you, would come to you in messages of such goodwill and affection as to overwhelm you with their warmth.

Your career has been, indeed, a remarkable one; and you must pardon me, and let the occasion be my excuse, if, in your presence, I allude to its success, and to the main causes of that success. Nor is it wholly unfitting in one to do so who has known you, and watched your progress with friendly interest, almost since you came to this city, to try your powers in a wider field. The training you brought with you as a rural practitioner of note was indeed valuable. Self-reliance, cool judgment under difficult circumstances, are not the least reward of a country physician's hard life. You enrolled yourself as a teacher of medicine in its most laborious branch, and fittingly took charge of a school which has been the nursery of famous anatomists and surgeons,—where Godman's practical skill was displayed, and Joseph Pancoast laid the foundation of that intimate knowledge of the human frame which made him afterwards so great a surgeon.

This Philadelphia School of Anatomy, in College Avenue, has, indeed, left its mark in the history of medicine. It has been to us what the Windmill Street School was to the London of William and of John Hunter, of Hewson, of Cruikshank, of Baillie, of Benjamin Brodie, of Charles Bell. Its rickety structure harbored not only anatomists—some of them your own pupils, who were to succeed you as celebrated teachers—but its dingy walls heard eloquent discourses on diverse branches from more than one of your future colleagues; in its garret, independent and fruitful researches on the textures of the body were pursued; in its cramped lower room, physiological experiments were carried on, which have made their deep impress on the science of our day.

For ten years's working in this school of anatomy you lived laborious days and nights, and in its stern training your classes grew, until the narrow

quarters would hold them no more, and you became the popular, admirable teacher you have proved yourself since, on a larger scale and on a different branch, as Professor of the Principles and Practice of Surgery in the famed University with which your reputation is forever identified. You learned to present facts plainly and impressively, to teach Nature's truths with Nature's simplicity and without a deadly paralysis of words.

But in these ten years of unremitting work you did something more than teaching. You laid by exact knowledge, by steadiness of purpose and affability the foundations of that large practice which you have since enjoyed, developing every day, more and more, into the trusted surgeon whose deft hand and cool judgment caused his advice to be generally sought. Every country shows in its professions the national traits. You certainly represent as a surgeon, besides much skill, the American characteristic of resolute common-sense.

You have been tried in many a hard case. In none harder, than when your reputation caused you to be selected among the counsellors at the wounded couch of one for whose relief millions were anxiously watching. That in these trying times you bore yourself with the same calmness and dignity we know in you, every one in these millions recognized.

Your success as a surgeon of great repute must, indeed have been gratifying to you. Not only for the opportunities it afforded you of doing so much active work in your profession; not only because it gave a personal value to your writings, especially to your opinions expressed in your elaborate work on Surgery; but because it enabled you to carry out a plan of action, of which I may not speak—one which showed you to be possessed of the same high sense of honor for which Sir Walter Scott has received the unbounded admiration of mankind.

May you, dear sir, who have these many claims to distinction and esteem; may you on this, the fiftieth anniversary of entrance into a profession which you have graced by your industry, your sagacity, your skill, your character; may you accept the homage of those

who are engaged with you in the same pursuit as a sign of widely-felt regard and appreciation. May your vigorous frame preserve your power of doing good, of teaching truths, for many a long year. May there always remain with you the assurance that, as age gently lays its hand on you, the chilling finger of time will not lessen the respect, nor benumb the tenderness of feeling, with which old and young alike regard you.

Dr. Agnew, after remarking that had it been the pleasure of his friends a less conspicuous demonstration of their good will would have been more in consonance with his feelings and taste, went on to say that, like many other men, looking back over his career he was struck principally with the mysteriousness of the influences and forces operating upon his life and the way in which carefully constructed schemes had miscarried and others taken their place. "When I came here a stranger, thirty-five years ago, it was from a large practice in a wealthy and populous district, but where I was unable to gratify my strong anatomical tastes. Hence it was in search of a wider anatomical field that I came to Philadelphia. The scene of my early labors, the Philadelphia School of Anatomy—the school of Godman Webster, the elder Pancoast and Allen—was indeed a school of the prophets—a gymnasium in which were trained such medical giants as Gerhard, the pioneer of physical diagnosis in America; of Wallace, who became professor of obstetrics in the Jefferson Medical College; of Bridges, the professor of chemistry in the Philadelphia School of Pharmacy; of Keating; of Henry H. Smith, of Francis Gurney Smith, of Penrose, of Brinton, of Garretson, and of your honored chairman. It was here that Brown-Sequard delivered his lectures on operative physiology and that Mitchell conducted his classic experiment on snake poison which has placed his name alongside that of Farran. Here, summer and winter, night and day, with rarely a vacation, I studied the mysteries of this wondrous frame lovingly and with enthusiasm and notwithstanding the opposition of the two great medical schools, drew around me a

class that was only limited by the capacity of the building.

"These were the happiest days of my life. The anatomical odors of those dingy old rooms were to me as sweet as those of Araby. I loved it so that when I was induced to become demonstrator of anatomy in the University of Pennsylvania I did so with reluctance. It was here that I formed the friendships which, like hooks of steel, have bound me to men of every part of the country and not a few across thesea.

"To Dr. Henry H. Smith and Dr. John L. Ludlow, more than all others combined, are we indebted for the restoration of clinical instruction in the Philadelphia Hospital. For twelve years, save a short interregnum, Dr. Smith and myself taught surgery in the hospital. For eleven years I was on the surgical staff of the Pennsylvania Hospital, until the inauguration of a policy that compelled me to resign. I have never hesitated to turn my back on any proposition or place, no matter how tempting, the acceptance of which would compel a surrender of my convictions. It has been my fortune to fill many places of dignity in the profession, but the principal satisfaction it gives me is that I never schemed or planned for any of them. When the end shall come I shall feel that I have had more than I deserved and in the choicest recollections will be this night and this assemblage."

Dr. Sayre, of New York, responded to the toast of "Our Visiting Physicians," making a most delightful speech, and, after a few remarks from Dr. Cleeman, the banquet closed at an early hour.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 25, 1888, TO APRIL 7, 1888.

COLONEL JEDEDIAH H. BAXTER, CHIEF MEDICAL PURVEYOR; MAJOR CHARLES R. GREENLEAF, SURGEON.—Detailed as members of an Army Retiring Board, appointed to meet at Washington, D. C., on Wednesday, April 4, 1888. S. O. 75, A. G. O., April 2, 1888. MAJOR CHAS. H. ALDEN, SURGEON.—Will repair to Washington, D. C., on public business, and on the completion thereof will return to his station (West Point, N. Y.) S. O. 75, A. G. O., April 2, 1888. MAJOR J. P. KIMBALL, SURGEON.—Granted leave of absence for two months, to take effect

about April 10, 1888. S. O. 68, A. G. O., March 23, 1888.

CAPT. VICTOR BIART, ASSISTANT-SURGEON.—Having been found incapacitated for active service by an Army Retiring Board, sick leave of absence is still further extended until further orders on account of disability. S. O. 77, A. G. O., April 4, 1888.

CAPT. EDWIN F. GARDNER, ASSISTANT-SURGEON.—Leave of absence extended fourteen days. S. O. 77, A. G. O., April 4, 1888.

FIRST LIEUTENANT W. D. CROSBY, ASSISTANT-SURGEON.—Granted leave of absence for two weeks. S. O. 29, Dept. Ariz., March 16, 1888.

CAPT. THOMAS F. AZPULL, ASSISTANT-SURGEON (retired).—Died March 12, 1888, at Fort Lee, N. J.

THERE HAVE BEEN NO CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING APRIL 7, 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 11, 1888, TO MARCH 24, 1888.

COL. J. H. BAXTER, CHIEF MEDICAL PURVEYOR.—Will proceed to Augusta Arsenal, Ga., on public business. S. O. 62, March 16, 1888.

MAJOR WM. C. SPENCER, SURGEON.—Died March 22, 1888, at Ft. Trumbull, Conn.

MAJOR G. M. STERNBERG, SURGEON.—Ordered to proceed to Brunswick, Ga., on official business, and upon completion of same will return to his proper station. S. O. 57, A. G. O., March 10, 1888.

MAJOR CHAS. R. GREENLEAF, SURGEON.—Will proceed to Cambridge, Mass., on official business. S. O., 62, A. G. O., March 16, 1888.

MAJOR W. H. FORWOOD, SURGEON.—Granted one month's leave. S. O., 20 Dp., Dakota, March 10, 1888.

MAJOR H. E. BROWN, SURGEON.—Assigned to temporary duty at Ft. Banannas, Fla., during the absence on leave of Asst. Surgeon M. C. Wyeth. On the return to duty of Capt. Wyeth, Major Brown will rejoin his proper station. S. O., 65, A. G. O., March 20, 1888.

MAJOR R. M. O'REILLY, SURGEON.—Will proceed to York, Pa., and make an examination of Capt. Edward B. Rheem, 21st Infantry. S. O., 62, A. G. O., March 16, 1888.

CAPTAIN J. C. WORTHINGTON, ASSISTANT-SURGEON.—Granted leave of absence for four months to take effect May 15, or as soon thereafter as his services can be spared. S. O., 65, A. G. O., March 20, 1888.

CAPTAIN M. C. WYETH, ASSISTANT-SURGEON.—Granted leave of absence for two months to take effect about April 1. S. O., 65, A. G. O., March 20, 1888.

FIRST LIEUTENANT WM. D. CROSBY, ASSISTANT-SURGEON.—Granted leave of absence for two months, with permission to apply for an extension of one month, to take effect after being ordered to a new station. S. O., 60, A. G. O., March 14, 1888.

FIRST LIEUTENANT JEFFERSON R. KEAN, ASSISTANT-SURGEON.—Relieved from duty at Fort Sill, Indian Territory, and ordered for duty at Fort Robinson, Nebraska. S. O., 56, A. G. O., March 9, 1888.

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MAY 1, 1888.

VOL. XVIII

CLINICAL LECTURE.

ON THE REPAIR OF LACERATED PERINEUM.

BY WILLIAM GOODELL, M.D.,

Professor of Gynecology, in the University of Pennsylvania, etc.

Delivered at the Hospital of the University of Pennsylvania, February 24, 1888.

GENTLEMEN:—While our patient is being etherized, I will give you a short account of her case: This woman is married and has three children; she is about thirty years of age. She had difficulty with her first labor, about six years ago. It was a forceps delivery which tore the neck of the womb as well as the perineum; the laceration being complete and as I found upon examination, it extended for some distance above the sphincter ani. When she came to us a few days ago I found that she was about four months pregnant. This you see introduced a new complication into the case. The question comes up, whether it were better to operate now or to wait? Of course we must defer operation upon the womb until after the labor, but shall we also leave the lacerated perineum until that time? This is the way I argue the case: If I wait to operate until she has been delivered, I should further

have to wait until the child is weaned. Therefore, it would be at least two years before I should again have a chance to operate upon the perineum. During all that time she would have no control over the lower bowel, she would constantly have to wear a napkin and the escape of wind and the contents of the lower bowel would be a source of constant mortification, and prevent her from going into the company of her friends. On the other hand an operation would relieve her of this annoyance at once, and would be without danger as regards the pregnancy. I have decided therefore to operate to-day.

In preparation for the operation, she was given a laxative yesterday morning and again last evening, and this morning the lower bowel was cleansed with a large injection of warm water. The perineum has been washed with carbolyzed water, and the skin has been shaved. The patient lying on her back, with her sacrum at the edge of the operating table, has her thighs and knees strongly flexed and securely held in position by the aid of Clover's apparatus, and the field of operation is before us.

You see these wrinkles in the skin at each side of the anus. They indicate that the sphincter ani has been torn through; they are never seen in front of the anus but at the sides and a little

posteriorly. Now then, in order to find the torn extremities of the sphincter muscle we must look for the depression or dimple in the skin on each side. Here they are easily seen. The end of the torn muscle is immediately beneath this spot. We also find that the tear has extended for at least one inch up into the rectum. She has, as you have heard, no control over the contents of the bowel whatever.

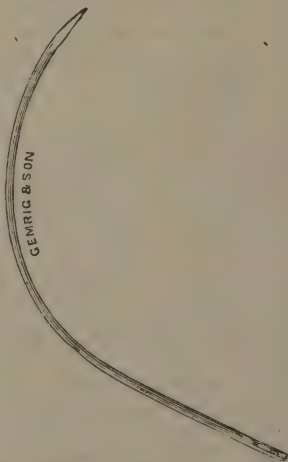
I will now proceed to denude the part commencing over the dimple on one side (the left), carrying my dissection of the skin with my scissors directly across the perineum until I reach the corresponding point on the right side, removing a strip a quarter of an inch in width. Now, I will take another denudation a little higher up; trying to keep it in one piece if I can. My reason for doing this is that when I cut off strips I know that the tissue is all removed, and that no part escapes denudation. We have, now, a raw surface extending directly across the perineum, beginning on each side with the termination of the torn ends of the sphincter.

I am going to sew up the tear in the bowel at once before going any further. For the sutures, I prefer fine cat-gut soaked in oil of juniper, for the reason that it gradually dissolves in the wound and does not require to be removed by the surgeon as silk or wire would. In the present case, as I have not that kind of gut at hand, I shall try carbolized horse-hair with which to stitch together the torn edges of the bowel. Now, watch this next step carefully, because upon it depends the success of the operation.

I do not believe that there is any other method that will repair the bowel as well as this one, or that will restore full control over the evacuations. By other modes of operating you can get a very good perineum, but there is none other that will give full control over the bowel. In paring the edges of the wound, I am careful not to cut too much into the mucous membrane of the bowel, because it will contract its lumen. I have now put in four interrupted sutures; the first being at the upper part of the lesion and the other lower down, each of the latter

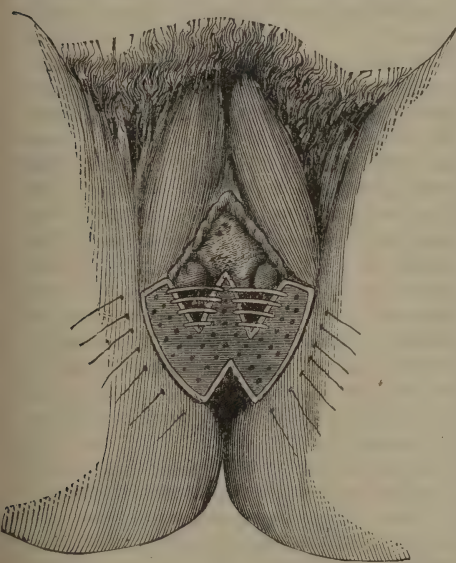
being lower than that immediately preceding. You will see, presently, how I have reduced the extent of the wrinkling; I do not expect to efface it entirely, because it has been here too long for the skin to recover its natural appearance at once. These stitches, you notice, do not take up any skin at all, but merely approximate the torn edges of the bowel. Each one is drawn tight, tied, and the ends cut short. It does not matter if they do cut a little. The fifth or final stitch, I am now taking, does include the skin with the sphincter muscle at its extremity, on each side; this, however, I shall not tie for the present, but shall leave it until all of the others, for the repair of the laceration of the perineum, are in place. You observe that this final stitch, when tied, will approximate the skin and also the mucous membrane, as well as the sphincter muscle, and will thus restore the form of the anus.

Now for the next step, which is the repair of the perineum. The surface must be denuded all the way up the labia as far as the cicatricial tissue extends. But I save as much as possible of the mucous membrane of the vagina to make a back wall to the new perineum. While dissecting up this mucous flap, I keep my left forefinger in the rectum to make sure that I do not cut through into the bowel. The denuded area should be equal upon each side of the median line.



I show you here a perineum needle, which goes by my name. It is more

curved than the one in ordinary use. It is to be buried in the tissue all the way across the perineum. The point is introduced into the sound skin upon one side of the perineum, and pushed through until it appears at a corresponding point upon the opposite side; my finger in the rectum shows me that it has not penetrated the bowel, nor has it appeared in the vagina. The suture is now loosely fastened with a shot. For the perineum, I am using silver-wire sutures. I prefer the wire here to cat-gut or horse-hair, because I can leave the sutures in for a week or more, if necessary; they do not yield, nor do they excite irritation; when the parts are ready, they will easily come away. These stitches, commencing at the lowest part of the wound, are introduced successively at intervals of less than a half an inch, until the upper margin of the wound is reached.



Before drawing the ligatures and fastening them, I have the surface of the wound washed with several syringefuls of carbolized water, in order to cleanse and disinfect the parts, and remove blood-clots, etc. This is an important precaution in order to secure success in all these plastic operations. In vesico-vaginal fistula failure is often due to the fact that the raw surfaces are not brought completely into apposition with each other on account of

intervening clots. (The method of introduction of the sutures is shown in the cut.)

The shot is now pushed down on the lowest suture and clamped, and in this way the six wires are successively fastened. You will notice that the edges of the mucous flap are brought into contact with mucous membrane, and the skin with skin; all the stitches are outside in the perineum and none appear in the vagina. This avoids a cicatrix in the vagina, which might tear in her approaching confinement.

This makes the very best perineum I know of; there is no other operation which can at all compare with it in giving a perineum so firm and secure. If you will put your finger into the vagina you will not feel any stitches; all the sutures are outside of the vagina.

Now with regard to the after-treatment. We shall get her bowels to move on the day after to-morrow. She shall have then some compound licorice powder. I shall try to get along without opium. I make it a rule, as far as possible, in these operations to avoid opium, and I have found that patients get along very well without it. Then we will open the bowels again in forty-eight hours, preferably by the laxative; but if this is not sufficient, she shall have an enema of warm soap-suds. I prefer the medicine, because I am afraid to trust the patient or her attendant with the syringe; she might not be sufficiently careful.

I prefer drawing her water for the first forty-eight hours. In inserting the catheter the patient should be lying upon her back, with her knees elevated; the attempt to introduce the instrument should not be made without the aid of sight.

After the operation the patient's knees are kept tied together. I do not regard this as essential, but prefer to have it done. She might move in her sleep and disarrange the dressing. She shall be fed on food which contains as little milk as possible, because milk makes a great deal of faecal matter and also constipates. After the first dose of compound licorice powder she shall have a teaspoonful every eight hours, if necessary, until the bowels are in rather a loose condition.

[NOTE.—The patient made a rapid and uninterrupted recovery. From the day of the operation she had control over the sphincter and the escape of flatus, to her great delight. On the eighth day she was again shown to the class. The parts had united by first intention, and the perineum and anus were completely restored. The wires were removed, and the patient, after staying a few days longer in the hospital to regain her strength, returned to her home in the country sound and well, with the exception of the lacerated cervix uteri, which will be the subject of operation at some future time.—REP.]

ORIGINAL COMMUNICATIONS.

THE USE OF ELECTRICITY IN THE DISEASES OF WOMEN (INCLUDING THE PRACTICE OF ELECTROLYSIS.)

BY G. BETTON MASSEY, M. D.,

Physician to the Nervous Department of Howard Hospital, and late Electro-therapeutist to the Infirmary for Nervous Diseases.

SECOND PAPER.

ACTION OF CONCENTRATED MILLIAMPERE CURRENTS ON ORGANIZED TISSUES.—Gynecological applications of electricity consist so largely in the continuous, concentrated action of one or the other pole of a current strong enough to produce more or less destruction of tissue, that the exact nature of this destructive process invites close attention. A careful, naked eye observation of the phenomena when a strong current is flowing is certainly both instructive and impressive, as well as decidedly conducive to the future welfare of the observer's patients. An experiment with fresh butcher's meat will give a very good illustration of the chemical part of these phenomena as they occur within the living body.

CHEMICAL EFFECTS AT EACH POLE.

Experiment 11.—Procure a half pound of beef muscle; insert into it two ordinary steel needles, one connected with the positive pole and the other with the negative pole of a good battery, and pass through the meat from 100 to 200 milliamperes for two minutes.

A sort of hissing or frying noise will be heard. This is seen to be caused, by the rapid production and escape of small bubbles (of hydrogen gas) from the track of the negative needle. The positive needle will cause no appreciable production of gas, but will immediately be found to be so firmly fixed in the tissues as to be withdrawable with difficulty.

On cutting down alongside the negative needle it is found to be practically surrounded by a cavity containing liquids and bubbles of hydrogen gas; the muscular tissue has been destroyed wherever in contact with the needle, the edges of the cavity showing it softened, infiltrated, and of a darker color. The needle remains as bright as ever.

The positive needle, if left in place and cut down upon, shows itself greatly rusted and corroded, enclosed firmly in a grayish eschar, colored darker in places by the dissolved iron of the needle.

If the positive needle be of brass, copper, nickel or any of the other baser metals, it is corroded with equal rapidity, the tissues being stained by the particular metallic salts formed for some distance from the needle. On using a gold or platinum needle for the positive pole, on the contrary, it is found to be practically unattacked by the nascent oxygen and acids. The tissues about the needle show now the uncomplicated picture of a positive electrolysis, viz., the characteristic hardening and searing of an acid application. A slight cavity forms about the needle, though not so large as that about the negative needle, filled with bubbles of oxygen gas which has failed to unite with the gold, and the non-corrodible positive needle is therefore not firmly fixed in the tissues as would happen with a baser metal. It is evident therefore that *whenever the active pole of a strong concentrated current is positive it should consist of either gold or platinum*, as otherwise the electrode surface is destroyed and the tissues infiltrated with a foreign metallic oxide.

The negative needle remains clean whatever the metal of which it is composed, or the strength of the current.

Reverting again to the disintegrated cavities in the meat, produced by the

negative and positive poles of a strong current (the positive pole having been non-corrodible), we can easily prove that the froth at the negative is alkaline, and that at the positive acid, by placing a drop of litmus solution upon each and allowing the current to continue a few moments. The blue color of the solution is unchanged at the negative pole, but is quickly reddened at the positive. By changing the character of the pole back and forth while still *in situ*, several such changes of color can be produced. The peculiarities of the disintegrating action of each pole are clearly due to the nascent alkalies of one and the nascent acids of the other. At the negative pole we have the soft liquefaction and infiltrated edges of an alkaline caustic. At the positive pole the hardened, coagulated eschar of an acid caustic.

ELECTRO-CHEMICAL REASONS FOR USING THE NEGATIVE POLE.—It is evident from these appearances that whenever destruction of tissue is desired the negative pole and its soft liquefaction is indicated, and therapeutic experience seems to confirm the view that the secondary effect of destructive electrolysis—absorption—is more extensive after the negative application.

ELECTRO-CHEMICAL REASONS FOR USING THE POSITIVE POLE.—From similar considerations, the use of the concentrated positive pole with strong currents is almost entirely limited to two objects in gynecological work, namely: the control of intra-uterine hemorrhage, which it accomplishes by sealing up the bleeding orifices by its characteristic coagulation; and the production of a patulous canal, as for the relief of stenosis of the os or cervix.

EXTENT OF DESTRUCTION AT THE POLES.—As to the extent of the destruction produced by a current—a question of great interest in the electrolysis of tumors and other structures beyond the range of vision—I have made the rough estimate that 200 ma., concentrated at the half-inch exposed end of a negative needle, will destroy an area of this length and a quarter of an inch in diameter in the muscular tissue of the cadaver, if passed through for two minutes. It is more than probable that living muscle is acted upon to exactly

the same extent, an equal destruction occurring in either case with the same number of milliamperes, duration and concentration of the application; although more force is required to get the same current through the drier, dead muscle. This difference of resistance does not need to be considered, of course, when a current controller is used, as it matters nothing what the cell power may be if the milliamperereadings are made to correspond. The amount of destruction produced by the same number of milliamperes in different tissues varies though, and it may be said to depend largely on the aqueous contents of the tissue, for the cavities produced in the experiments on meat were caused to a large extent by the destruction of water. Less decomposition will be attained by the same current in a fibroma than in a striated muscle for this reason, and the disintegration depends more largely on the cauterizing effects of the liberated chemicals.

ELECTRO-PUNCTURE IN GYNECOLOGY.—The practical work of electrolysis in gynecology differs from the experiments just described, in that but one pole is permitted to be sufficiently concentrated to produce such results; the other pole, consisting of a large dispersing electrode, being placed, as properly advised by Engelmann, on the nearest convenient surface. This active pole, in the shape of a strong, spear-headed needle, has its conducting surface still further contracted by being insulated to within a half inch of the point, enabling the operator to confine the work strictly to the neoplasm itself. Full details and directions for the performance of electro-puncture within the pelvis will be given in a subsequent paper of this series, in discussing the treatment of fibroid tumors.

CAUTERIZATION.—If electrolytic destruction of tissue has been produced by an active pole merely placed in contact with a mucous surface, it is called by Apostoli a *cauterization*, and this designation will not readily confound it with the entirely different cauterization produced by the heat of a galvanocautery knife, if the polar nature of the application is always stated as it should be—whether a positive or a negative cauterization. This electrolytic cau-

terization with a single pole does not differ in any respect from that of electro-puncture, being found only when a strong current is concentrated in its passage through a mucous membrane by the small area of the conducting surface of an electrode, or when a weaker current is unduly prolonged. It is illustrated by slightly varying the experiment given above. Instead of needles use two blunt metallic surfaces merely pressed into good contact with the meat. The same phenomena will be observed with similar current strengths as in the puncture experiments, with the sole difference that the energy of the disintegration of the surface will be lessened owing to greater electrode size, and consequently lessened concentration.

The need of a moist covering for the electrode, that is so important when we wish a current to penetrate through the skin, does not exist in a permucous application, for the mucous surface is always sufficiently moist to furnish a perfect conducting joint between the metallic surface and itself. Several recent writers have been led astray on this point, teaching that a cotton covered electrode favored easy transmission of current to deeper structures in permucous as well as in percutaneous work, and that the bare metal alone was liable to produce cauterization of the mucous surface. In truth there is no difference between either the local or distant action of a covered and an uncovered negative electrode *when the current strength and the extreme area of the conducting surface of the electrodes remain the same.* The wrapping of a bare electrode of course increases its size, and hence lessens the concentration of a given number of milliamperes; but if the experiment be tried of passing the same number of milliamperes through a piece of meat in two different situations—once with bare poles and again with wire ends wrapped firmly with cotton until their total size is the same as the bare poles—it will be found that the electrolysis is exactly the same, except that the cotton about the positive pole will save the meat some staining if the pole is of baser metal. The electrolysis produced in either case is a mere matter of strength and con-

centration of current, and one can cauterize a surface just as effectively with a cotton-covered electrode as with a bare one of the same size. The only way to avoid local action when using a strong current is to disperse its force by increasing the surface of the active electrode, and in vaginal applications at any rate this is quite possible by the use of large oval or cylindrical conducting surfaces.

POLAR AND INTERPOLAR REGIONS:—In performing experiments, and in all therapeutic punctures and cauterizations, it will be noticed that no visible change occurs in the meat or tissues except directly at each pole. This is because an electrolytic disintegration of animal tissue consists in a resolution of the organized compounds of which it is formed into their chemical constituents—acids and bases—the two classes of bodies being separated and conveyed to one or the other pole. The acids, oxygen, etc., appear at the positive pole, and the bases and hydrogen at the negative pole. An actual transfer of particles in both directions takes place through the whole distance of tissue between the poles* but the freed particles, singularly enough, appear only in the immediate neighborhood of the latter. These freed particles, being in the active condition known to chemists as *nascent*, immediately attack the tissues at the poles, and, if in overwhelming abundance, cause the peculiar destructive appearances described in the preceding paragraphs.

The passage of a current of appreciable milliampere strength through the body presents, therefore, three distinct regions for therapeutic possibilities (Fig. 5), two, restricted to the immediate vicinity of the electrodes, and called the "polar regions," and the third extending along the lines of least resistance between the first two and called the "interpolar region." Within the interpolar region the interstitial and cellular irritation incidental to the transmission of the current and of the particles that appear naked at the poles

*This may be experimentally proven by wetting the kathode with a solution of potassium iodide: after a varying period of application and strength of current, the free iodide will appear at the anode, having passed through the intervening part of the body.

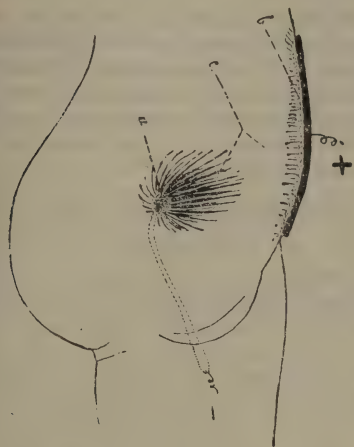


Fig. 5.—Diagram of the polar and interpolar regions of a current. A. Active polar region (negative in diagram.) B. Indifferent polar region (positive in diagram.) C. Interpolar region. The radiating curved lines in the interpolar region show the situations in this region where the current density is greatest; with the indifferent electrode on the back instead of the abdomen the denser area is more posterior.

(cataphoresis), is the chief basis for therapeutic results, while in the polar regions the chemical action of these particles, as described above, is supplemented by another set of phenomena due to the behavior of nerves when under the influence of concentrated current at either pole. It is in the immediate vicinity of the poles therefore that the most direct therapeutic results are obtained, and the readiness with which electrodes may be brought in contact with diseased conditions within the pelvis is a most promising fact for the electro-therapeutics of gynecology; although even in this class of diseases, the interpolar action of the current must frequently be depended upon.

It is hardly necessary to mention here that no attention is paid to the direction of the current, as such, by modern therapists, who look only to the polarity of the active electrode. The older terms "ascending" and "descending" were incorrect in view of the fact that a current spreads in all directions beneath each pole; and the reactions formerly attributed to one or the other direction are now known to be due to the polarity. Even within the interpolar region the direction of the current has no known significance at present.

ALTERATION OF NERVE IRRITABILITY WITHIN EACH POLAR REGION.

Exp. 12. Attach two medium-sized electrodes of the same dimensions to the binding posts, place them (well wetted) on the skin over each peroneal nerve just back of the head of the fibula and increase the current to 5 or 10 ma.

The burning pain under the negative electrodes is in distinct contrast to the numb sensation under the positive. While pain is produced near the positive pole also, if the current be greatly increased in volume, it has been demonstrated by careful experiments that a nerve lying within the negative polar region has its normal excitability increased, and one lying within the positive polar region has its normal excitability diminished. These physiological facts were very early applied to the treatment of neuralgic conditions and the rule laid down that the positive pole was the best adapted for the relief of pain. I, myself, believe that this rule has been too hastily adopted. The polar modifications of a nerve are beyond dispute, but it is more than questionable whether the production of either anelectrotonus (positive polarization) or katelectrotonus (negative polarization), within a nerve can exert any influence upon the pathological conditions giving rise to pain; at any rate my experience has been that the negative pole is even more effective for this purpose than the positive, or at any rate has been so satisfactory as to make it useless to resort to the positive pole with its necessarily incorrodible electrode. The efficiency of the negative pole in the relief of pain might be ascribed by some to the after effects of electrotonus, as ascertained by Waller and DeWatteville,* who showed that sedation followed the excitement of negative polarization after the discontinuance of the current, and vice versa with positive polarization; but, to my mind, the relief of pain is due rather to the influence of the current of either pole on the physical molecular conditions of the nerve trunk and on its circulation, as well as reflex impressions made on the center whence the pain so frequently emanates.

* Philosophical Transactions, 1882, p. 961.

A practical matter to be considered when using a current to impress the sensory nerves of the pelvis, is the wisdom of using as large a conducting surface for the vaginal electrode (when the application is vaginal) as convenient, in order that as much current—ten to thirty ma.—may be used as is possible, without unnecessary cauterization of the mucous membrane. It should also be understood that the region of nerve polarization about an active pole is somewhat larger than the region of chemical decomposition, and that we can readily include within it any nerve or nerves within, say three-quarters of an inch of the electrode, when using currents of 20 or 30 milliamperes.

CURRENT ACTION WITHIN THE INTERPOLAR REGION.

Since it follows from the facts touched upon in the foregoing paragraphs that the chemically destructive action of a continuous current is limited to the close neighborhood of the electrodes, and the direct nerve-modifying action is also limited to a somewhat larger region in the same situation, the natural question arises: What can be therapeutically accomplished when the seat of disease is necessarily situated beyond the direct reach of the electrode? An answer drawn from both neurological and gynecological experience is that much can be accomplished; and this is doubtless due, in the first place, to the influence upon nutrition of the chemical interchanges that occur throughout the circuit, in the onward progress of the particles that appear free finally at the poles (catalysis and cataphoresis), and partly to the influence upon nutrition of the circulatory changes that result from vasomotor stimulation. These results of quiet current transmission are governed in magnitude at a given spot by the *density* of the current at that situation and by the *duration* of the application. The difficulty of carrying an effective density to a tumor, extravasation, or other morbid spot, situated at some distance from the active electrode, is indicated by a glance at Fig. 5, in which the spread of current is well represented by the direction and shading of the lines shown in the interpolar region. To accomplish much in the

more distant parts of this region considerable milliampere strength must be employed, hence a delicate judgment is demanded in the selection of the size of the active pole to avoid cauterization on the one hand and too great a diffusion on the other.

INTERRUPTED GALVANIC CURRENTS IN GYNECOLOGY.

Galvanic interruptions, either rapidly or slowly produced, are rarely if ever used in direct pelvic applications, for the reason that they are far more productive of pain and shock than faradic currents and are in no wise more effective than the latter.¹ The avoidance of current variation, indeed, is a most important detail in the majority of applications of this sort, and it is for this reason that the author has insisted on the gradually increasing and decreasing method in these papers.

A sudden current variation either accidentally or intentionally produced in a galvanic current (or as naturally occurs at the beginning of each induction in the series of currents constituting the faradic current) should be understood as productive of effects that are essentially different from those of the continuous current. So far as we know at present the perturbation produced by it is limited entirely to an artificial stimulation of the functions of a nerve or muscle. No chemical changes whatever result from the variation as such, but merely the local stimulation, together with the centripetal and possible reflex effects of the sensory stimulus. The differing effects produced by a continuous current and by a current variation on a nerve may be studied by a slight addition to the details of experiment.

EXP. 13. *The effect on nerves of a slowly varied or continuous current compared with that of a sudden current variation.*—Proceed as in Exp. 12, noting that no pain or motion is produced in the distant parts of the nerve if the five or ten ma. have been attained by a *gradual* increase from zero. With the current at this height remove now one of the electrodes and re-apply

¹ This statement by no means applies to the neurological applications of electric currents.

it (or break and make the circuit by an interrupter), a contraction will be produced in the muscles supplied by the motor fibres, and a sudden sensation in the areas supplied by the sensory fibres of the nerve.¹

Although exceedingly important in neurological work, such stimulations are generally to be avoided in gynecological applications, in which, if the current in use be heavy, they may be accompanied by exceedingly unpleasant shock, or even syncope.

ERYTHEMA NODOSUM.²

By O. M. ALLABEN, M.D.,
Of Margaretville, N. Y.

ERYTHEMA NODOSUM is a disease not often met with; but every physician having much practice will occasionally encounter, and can scarcely fail to diagnose it correctly from its description in the books. The fact of its infrequency has given it less prominence than it deserves; for, although not considered a fatal malady, it is often sufficiently severe to confine the patient to his bed or house for several weeks, or even months. That it is a strictly inflammatory affection has been conceded by nearly all authors who have written upon the subject. The recent System of Medicine of Dr. Pepper defines it as "an acute inflammatory affection characterized by the formation of variously-sized roundish or ovalish more or less elevated erythematous nodes;" and the late Dr. Geo. B. Wood in both theory and treatment favored the same view.

Its nosological status has always been found with the erythemata, but to my comprehension it bears upon its face quite as strongly the mark of a phlegmon.

Climate and local topography are

¹ If the nerves subjected to this experiment are not too deeply embedded in muscular or adipose tissue they exhibit very readily the normal polar reactions of motor nerves so important in connection with the electro-diagnosis of paralytic conditions. It is readily seen that greatest action is produced at the kathode at the closure of the circuit and at the anode at its opening—hence the formulae, K. Cl. C''''', A. O. C''', A. Cl. C'', K. O. C'.

² Read before the Third District Branch of the New York State Medical Association.

leading factors in giving character to inflammatory action; and it may be that the pure mountain air of the Catskills and its excellent water, give a vigor and tonicity to the system which should be taken into account while studying the pathology of diseases in this region. Heat, pain, redness and swelling—the leading characteristics of phlegmonous inflammation—are found with equal certainty in every well-marked case of erythematous inflammation; the distinguishing feature being a disposition of the one to end in the suppurative process, while the other invariably terminates in resolution, through the agency of effused lymph, usually a little bloody, which is thrown out into the substance of the node; and its removal by the process of absorption. This accounts for the swelling in the first place, and the discolorations afterwards. The blood-vessels of the diseased part become engorged and the circulation obstructed. The vascular tension is relieved by the effusion of serum or lymph, which is finally removed by absorption, the thinner parts first and the blood corpuscles afterwards, completing the cure. This is nature's method of treatment, and would obviate the necessity for any artificial treatment could the patient afford to wait and suffer the pains, inconveniences, anxiety and loss, to which the natural process subjects him. The same might be said of any other self-limited disease; but the office of the physician is to assist nature in her efforts for good—to relieve the pain, remove the inconveniences, soothe the anxiety, and shorten the limits of the malady, by every rational means at his command.

"The causes of the disease are unknown," say our authorities; but the severe gastric disturbance and decided febrile indications which frequently attend the onset of the disease have led many to the conclusion that the causes are usually to be found in a disordered state of the system, and especially of the digestive organs.

It is regarded as a dermatitis involving the subcutaneous tissues, especially the lymphatic system of vessels.

Adopting the theory that the inflammatory process in this disease is acute

and nearly allied to phlogosis, I have in my practice usually followed the antiphlogistic method of treatment, and with the most satisfactory results. In illustration of the comparative value of the active and passive mode of treatment, I will offer, somewhat in detail, two or three cases which have occurred in this neighborhood under my observation, one of which was treated by myself, and the other by a neighboring physician of good standing, upon conservative or expectant principles.

CASE I.—I. T., a middle aged, hard-working, well-to-do farmer, with regular habits, was seized several years since in early June with chills, followed by pains in his limbs, an excited pulse and a febrile condition of the system generally. Suddenly there appeared upon the tibial surface of one of his legs several hard, painful, throbbing, tender and red patches, about the size of a dollar. They were slightly elevated above the surrounding parts; and entirely incapacitated the patient from taking any exercise, as any attempt to do so, or even to stand upon his feet, so greatly aggravated all the symptoms, especially the pain and throbbing, that he could scarcely endure it. Blood-letting was immediately resorted to, which relieved the pain at once, reduced the redness and tension, and materially improved all the other symptoms. A saline cathartic was then ordered, the diseased limb placed in a horizontal position, and an antimonial diaphoretic directed to be given. After an interval of about forty-eight hours the patient was again visited, when all the above symptoms were found to be somewhat aggravated. The patient was again bled, and a slippery-elm poultice substituted for the saturnine lotion which had been previously used as a local application. At a subsequent visit the node was scarified with the lancet, no leeches being at hand, as the local applications had proved of little use in the treatment. This ended the active treatment and virtually completed the cure.

This case was one of the most severe at its commencement that ever came under my observation, and occupied just one week in running its course; the treatment having been commenced

on the 7th of the month, and the patient discharged on the 14th, as he no longer needed the services of a physician.

Cases II and III.—The other two cases both occurred in the same family, and at about the same time. They were sisters, young ladies just ripening into womanhood, and were the daughters of a wealthy farmer, who relates the cases substantially as follows: They were both attacked in the month of March last, by the appearance of several hard, red, roundish patches, covering spots upon their shoulders, arms and legs. The nodes were not elevated much above the surrounding skin, but were somewhat painful and tender. The father does not know what remedies the doctor used; but the girls were neither bled nor leeches, and but little attention was paid to the nodes themselves. The remedies seemed to have but little effect, as the girls remained sick for a long time, and one of them had not yet fully recovered on the first of June.

The lessons which the above recital seems to teach, and the points in the above paper to which the attention of the profession is invited for consideration are:

1st. That erythema nodosum as it occurs in this region, is an acute inflammation of the skin and subcutaneous tissues, and more nearly allied to phlegmon than to any other erythema.

2d. That it has not received from physicians and authors the consideration which its importance requires.

3d. That its natural cure is effected through the instrumentality of effusion and absorption, which is a process of depletion.

4th. That its course can be limited and its symptoms relieved by the same treatment as other acute inflammatory diseases.

5th. That to imitate nature, and effect a cure by depletion, is analogically, physiologically and pathologically correct.

The *Electrical Review* comes out with a new and handsome cover, with several new departments, and, in fact, covered and filled with evidences of well deserved prosperity.

GUN-SHOT WOUND OF THE LIVER COMPLICATED WITH COMPOUND COMMINUTED FRACTURES OF THE SEVENTH, EIGHTH AND NINTH RIBS ON THE RIGHT SIDE; OPERATION; RECOVERY.

BY A. P. FRICK, A.A., SURG.
U. S. A.

MR. F. S., a stock-raiser residing near Fort Thomas, A. T., aged 57 years, was admitted into the Camp Hospital on March 15, 1887.

On March 12, he had been on his range, alone, looking after some cattle. When at lunch, about 2 o'clock, P.M., he tried to drink from a brook without using a cup, and while stooping for this purpose, his revolver (a Colt's, caliber 44), fell from his pocket, the hammer striking a rock, and discharging a load into the right side of his body.

The wound is accurately described as follows, viz.: Wound of entrance $5\frac{1}{2}$ inches outwardly from the anterior median line of the body, and about midway between the axilla and the anterior superior spinous process of the right ilium.

The exact measurements (the patient lying flat on his back) are as follows, viz.: Right axilla to wound of entrance 9 inches; anterior superior spinous process of right ilium to wound of entrance $8\frac{1}{2}$ inches. Right axilla to wound of exit 10 inches; anterior superior spinous process of right ilium to wound of exit 8 inches; the wound of exit being about one inch lower than the wound of entrance, and the length of the track of the ball six inches antero-posteriorly. Distance from wound of exit to posterior median line of the body $5\frac{1}{2}$ inches.

The measurement around the body at the seat of injury was 34 inches.

Those portions of the seventh, eighth and ninth ribs lying in the track of the ball were all comminuted.

Immediately following the reception of the injury there was profuse hemorrhage, which did not entirely cease until more than twelve hours afterwards. He was unable to mount his horse, or walk, and his friends did not find him until twenty-five hours after the accident.

Believing that the wound would necessarily prove fatal in a short time, his friends cared for him near the place where the accident occurred; but on March 14, twenty-four hours after finding the wounded man, it was decided to seek professional aid, and the patient was on that day brought in a wagon as far as old Camp Goodwin, seven miles from Fort Thomas, where I was then stationed, and placed in my care on the following day, March 15.

His temperature, on admission, was $99\frac{1}{2}^{\circ}$. Rest, quinine in tonic doses, and extra diet were prescribed.

On the 16, the temperature rose to $101\frac{1}{2}^{\circ}$, and to $102\frac{3}{4}^{\circ}$ on the 17. I now recommended a surgical operation, and on March 18, after consultation, and with the efficient assistance of Drs. E. R. Morris and T. B. Davis, U. S. A., excised parts of the fractured ribs.

At 2 o'clock, P.M., the patient was brought to the operating room, and in fifteen minutes came fully under the influence of the ether which was administered. With the usual antiseptic precautions the parts lying between the wounds of entrance and of exit were divided on a grooved director, from the track of the ball outwards. Upper and lower flaps were dissected back far enough to reach sound portions of the injured ribs. After removing the loose fragments of bone, the shattered ends of the seventh, eighth and ninth ribs were cautiously cut and rounded with bone-nippers, guided on the inner side of the ribs by the index finger of my left hand.

Only one vessel, the eighth intercostal artery, required a ligature.

The lengths of the excised portions of ribs were about two and one-half inches, thus bringing into view the right lobe of the liver over a space of two and one-half by six inches, and showing a long lacerated wound of that organ, with an abscess one and one-half inches in depth situated about the middle of the exposed portion. The abscess discharged pus mingled with bile.

After removing all lacerated parts that must necessarily slough, the entire wound and the cavity of the abscess were thoroughly syringed and cleansed with

a solution of bichloride of mercury (1 part to 1000). A drainage-tube was now inserted into the cavity in the liver, another laid across the wound from the point of entrance to that of exit of the bullet, and the parts brought together by means of the interrupted suture.

The duration of the operation was thirty-five minutes.

The patient was then returned to his bed, a draw-sheet placed under him, the surface sponged frequently with the bichloride solution, and lint wet with lead and opium lotion kept constantly applied. The lotion was kept as cool as possible without having ice, and the cloths changed every few minutes for the first two or three days.

Magendie's solution of morphine (ten minims) was administered hypodermically, as soon as the effects of the ether had passed away, and afterwards quinine five grains, with one grain of opium, were given three times daily. In addition to this about six ounces of brandy in the form of egg-nog were given every twenty-four hours.

Twice each day the drainage-tubes were cleansed, and the parts thoroughly syringed through them with bichloride solution.

Mild, cooling laxatives and rectal injections were given as needed. Later on, ammonii carbonas was added to the stimulants. Milk, beef-essence, etc., were liberally given, and the same general treatment as above noted was pursued until all danger from peritonitis and septicæmia had passed.

The temperature in this case the day before the operation was $102\frac{3}{4}^{\circ}$, which (with the exception of the tenth day after operation, when a temperature of $103\frac{1}{2}^{\circ}$ was noted) was the highest reached throughout the case.

Through the central drainage-tube there was a free discharge of bile during the first ten days.

Troublesome bed-sores and slight necrosis of the proximal end of the ninth rib, requiring operation, were the only complications of any note that were encountered.

On June 1, 1887, the patient was discharged, cure complete, and in every way satisfactory.

Fort Selden, New Mexico.

THE STANDARDIZATION OF FLUID EXTRACTS.*

BY JACOB P. RUSSELL.

SINCE the introduction of fluid extracts, some twenty-five years ago, numerous studies have been made concerning them; and the results obtained, in relation to their menstrua, preparation, etc., have been most commendable.

But there are questions of another sort which remain to be answered; such as the proper mode of standardization, based upon their strength of active constituents, especially of the alkaloids.

No one who has examined this subject can have failed to note the wide degree of difference which exists between the various specimens of a fluid extract; no matter how closely the pharmacopœial instructions may have been obeyed. This is due to the variable amount of the active constituents in the drug.

With the view of obtaining more accurate knowledge of these preparations, the writer has examined four of the more important numbers of the alkaloidal fluid extracts.

The results obtained are herewith presented, in the hope that they may serve as a basis for more extended investigations.

By the variability of crude drugs, physicians are compelled to resort to the alkaloids, instead of galenical preparations. The effects are, however, not strictly equivalent; and in many instances the galenical preparations would be preferred by the physician, could he prescribe them with any reasonable degree of accuracy.

The fluid extracts selected for examination were those of cinchona, aconite, nux vomica and belladonna.

Samples of each were obtained from six prominent manufacturers, and from a selected sample of each drug I, myself, prepared a fluid extract for comparison.

I have no desire to criticise the products of these manufacturers, but wish to show the need for the adoption of a uniform standard, by the wide variation in the strength of these fluid ex-

* Abstract of Graduation Thesis presented at the Medico-Chirurgical College, for the degree of Doctor of Medicine, April, 1888.

tracts. This variation depends upon the difference in the quality of the drug used, and upon the method employed in making the extract.

Cinchona Fluid Extracts.—I assayed a sample of cinchona bark by the process of the B. Ph., which showed 2.55 per cent. of quinine. From this I made my fluid extract; which, assayed by the process of the U. S. P., 1880, gave 3.95 per cent. total alkaloids. The results are given below :

No.	Amount used.	Total alkaloids per mg.	Total alkaloids per cent.	Quinine.
1	20 c. c.	790	3.95	2.55
2	"	260	1.30
3	"	290	1.45
4	"	370	1.85	0.72
5	"	315	1.575
6	"	450	2.25
7	"	500	2.50

Numbers one and four were the only samples assayed for quinine.

Assay of Belladonna.—The method employed was that of Dunstan and Ransom :

No.	Amount.	Total alkaloids in mg.	Per cent.
1	25 c. c.	140	0.56
2	"	45	0.18
3	"	145	0.58
4	"	100	0.40
5	"	98	0.398
6	"	100	0.40
7	"	120	0.48

Assay of Aconite Root.—The process was that of Duquesnel, except that I used sodic hydrate in place of potassic :

No.	Amount.	Alkaloid in mg.	Per cent.
1	50 c. c.	240	0.48
2	"	300	0.60
3	"	200	0.40
4	"	320	0.64
5	"	150	0.30
6	"	180	0.36
7	"	180	0.36

Assay of Nux Vomica.—In this the process used was that of Dunstan and Short :

No.	Amount.	Total alkaloids in mg.	Per cent.
1	25 c. c.	530	2.12
2	"	440	1.76
3	"	650	2.60
4	"	450	1.80
5	"	250	1.00
6	"	350	1.40
7	"	360	1.44

The proper remedy for this state of affairs is the adoption of a fixed standard of alkaloidal strength for all galenical preparations which can be so standardized; and of such tests for their examination as any physician or pharmacist can apply.

To the busy practitioner this may seem an undertaking of such magnitude as to forbid even its consideration, but this is not so.

With a given sample of an alkaloidal fluid extract, anyone with a mind disposed to research and analysis may in the spare moments of *one day* arrive at results so nearly correct as to be entirely satisfactory.

The appliances necessary are, first, a clear head, next, a good balance, a set of accurate metric weights, a 5, 25 and 50cc. graduated pipette, a few beaker glasses, a 20cc. tared glass capsule, a 200cc. porcelain evaporating dish, a set of test tubes from 3 to 8 in., a 50cc. cone-shaped graduated measure, a wide mouth bottle holding 200cc., a few sheets of white filtering paper, and we are prepared to make an accurate analysis of any of the more potent alkaloidal fluid extracts of the U. S. P.

As an example we will take fluid extract of belladonna. First find the specific gravity. This gives us a fairly good idea of the menstrum used. Now take 25cc. of the fluid extract, add to it a few drops of diluted H₂ SO₄, to this add 25cc. of chloroform, and agitate with two successive 25cc. of distilled water; remove the chloroform with pipette. Mix the aqueous liquids and again agitate with 20cc. of chloroform to remove any adherent coloring matter. Allow it to rest for one hour, then remove the chloroform with pipette.

Now make the aqueous alkaloidal liquid slightly alkaline with ammonium hydrate, added *drop by drop*, testing carefully with acid litmus paper, so as

not to get it too alkaline. Agitate this with three successive 25cc. of chloroform, allowing each to separate from the watery solution before attempting to remove it.

■ Mix the chloroform solutions, and evaporate spontaneously in tared capsule, dry carefully, and weigh as total alkaloids. This multiplied by four gives us the per centum of alkaloids.

This process, while apparently tedious, is in reality easily and quickly accomplished, and when the details are carefully attended to, absolutely accurate results can be obtained.

■ For cinchona fluid extract, the process of U. S. P., 1880, for total alkaloids, give good results and is easily worked.

For nux vomica the writer would recommend the process of Messrs. Dunstan and Short.¹

For aconite root the process of Duquesnel² gives the best results.

In my assays I have used various published formulæ, also modifications of my own; but the above give the best results, and are worked with ease.

In conclusion the writer would urge upon the pharmacists, manufacturing pharmacists especially, to take the initiative in this work, and establish definite standards in alkaloidal strength in fluid extracts, empirical though they may be, until our recognized authority, the U. S. P., in the next revision, sees fit to fall in with scientific advancement and adopts a general system of standardization for all galenical preparations.

[It is not intended by this article to advocate the superiority of any manufacturer's goods. Doubtless equally good results can be secured by the use of any one of the above list. But if one desires to prescribe with any pretention to accuracy, he must know the real strength of the preparation he is employing. If he desires to give a maximum dose of fluid extract of belladonna, and has been in the habit of using No. 2 with an alkaloidal strength of 0.18, the consequence would be disastrous were the pharmacist to fill the prescription with No. 3, whose alka-

loid strength is 0.58 per cent. Until the remedy suggested in this paper is adopted, physicians must continue to specify the brand they desire to employ, or to send their prescriptions to special pharmacists with whose preparation they are familiar.—Eds. P. M. T.]

HOSPITAL NOTES.

HEMI-CHOREA COMING ON AFTER PARTURITION.—A very interesting case was presented at Osler's clinic at the Orthopædic Hospital, on last Wednesday. Mrs. X., the mother of three children, had an attack of inflammatory rheumatism, four months after the birth of her last child. From this she recovered, but four months afterward chorea appeared, commencing in the right thumb and the twitching extended up the entire arm, and subsequently appeared in the right leg, in which the motion was more marked than in the upper extremity. The choreic movements were confined to the right side. When she applied to the dispensary the above condition was noted; examination of the heart revealed a systolic basic murmur. No valvular-lesion was detected. The movements were much worse in damp or stormy weather, so that at times she was not able to walk across her room. She was treated by Fowler's solution, five drops three times daily, and increased until doses of ten or twelve drops were taken, or half a drachm daily. An interesting point in the case consisted in the fact that the patient had never had chorea in childhood, and none of her family had been similarly affected.

EPILEPSY FOLLOWING CHOREA.—A young woman, fifteen years of age, first appeared at the Orthopædic Hospital five years ago, suffering with an attack of chorea. She was treated by Fowler's solution, increased to ten drops three times daily. Recently symptoms of epilepsy came on and she has had three attacks within the last two weeks. She is now taking fifteen grains of potassium bromide thrice daily. The occurrence of epilepsy after chorea is rare enough to make the case noteworthy,

¹ *American Journal Pharmacy*, 1884, p. 199.

² U. S. D., 1885, p. 123.

and Osler pointed out that some choreic movements were still present in the arm. Her general nutrition was good.

BRAIN TUMOR CURED BY POTASSIUM IODIDE.—Osler presented a man, forty-two years of age, who eighteen months ago had well-marked symptoms of cerebral tumor; persistent and severe headache, and well-marked double optic neuritis. Iodide of potassium was given in increasing doses until fifty grains were given three times daily. No other treatment was given. He steadily improved until now he seems in good health; the optic disks are slightly gray and the outline obscured, and there are still some evidences of old retinal hemorrhages.

It may not be generally known among physicians that the bromide of lithium is almost a specific for muscular rheumatism.—*Bartholow.*

SOCIETY NOTES.

At the Philadelphia County Medical Society, Dr. Keen described a case in which Goodell had performed oöphorectomy in 1876. Temporary improvement followed, but the pain and other symptoms returned in 1887, Keen then performed hysterectomy, effecting a cure which is thought to be radical. The interesting point in this case consists in the development of myomata in the uterine tissues after removal of both ovaries.

Goodell stated that at the time of his operation there was a myoma as large as an infant's head; which nine months afterwards had shrunk to the size of a horse-chestnut. He expressed himself as skeptical as to the permanency of the cure.

Dr. John B. Roberts, in the County Medical Society, spoke of the loofah, or towel-gourd, as a useful substitute for the nail brush in scrubbing the skin previous to an aseptic operation.

They are cheap, can be carried easily in the satchel, and thrown away after having been once used.

Dr. J. William White exhibited the urinary organs of a man, on whom he was about to operate for vesical calculi

when a sudden diarrhœa carried the man off.

The kidneys showed pyonephrosis, but little of the cortical substance remaining.

Dr. Joseph Price read a report of three cases of operation for strangulated hernia; all successful. He noted especially the rapidity with which the dark color of the intestine disappeared when the strangulation was relieved.

At the Neurological Society, Drs. Mills and Cahill described six cases of epidemic cerebro-spinal meningitis which were observed during the past winter in this city. Three cases recovered.

With reference to treatment, bromide of potassium, in half-drachm doses, failed to relieve the headache or produce sleep in the severe cases (the same result followed chloral). Nothing definite can be said as to the effect of quinine. Sodium salicylate and oil of gaultheria gave relief to the neuritic pains in the legs, but produced no appreciable benefit to the head and neck. Opium and morphia did positive good in every case, but after the more acute symptoms had passed the good effect seemed to be lost. In the two cases where iodide of potassium and the bichloride of mercury were used by Dr. Cahill, the effect was surprising to patient and physician alike. The improvement was too rapid to be the result of the alterative properties of the drugs, but more like the action of specific remedies.

At the Obstetric Society, Dr. Drysdale reported a case of multilocular papillomatous tumor of the broad ligament, producing obstruction of the bowels. An operation was performed, but the patient died of uræmia; one kidney being found subsequently to be converted into a cyst, and the other also diseased.

Dr. Price called attention to the depression of temperature occurring during the administration of ether. Dr. Drysdale considers this due to uræmia and not to the ether.

Dr. Hamill called attention to the fact that placental apoplexy is not of rare occurrence.

He also detailed a case in which a husband commenced to have morning sickness two weeks after his wife's last menstruation previous to parturition.

[It would be interesting to know if the husband were a drinking man.—Ed.]

TRANSLATIONS.

CUNDURANGO IN CARCINOMA OF THE STOMACH.—Prof. Aser, of the Vienna Polyclinic, renews the discussion regarding the value of cundurango in the treatment of carcinoma of the stomach, in an article in the *Klinische Rundschau* for April. Cundurango was first prominently brought to notice as a therapeutic agent by Friedreich in 1874. He published a case of undoubted tumor of the stomach which was cured by the use of this drug. It, however, fell into disrepute, and little more was heard from it, except adversely, until 1887, when Reiss revived the subject by publishing his success in the treatment of one hundred and ninety-six cases, eighty of which were treated with cundurango; fifty-three died—66 per cent. Average length of treatment, 39.3 days. Of those dismissed, twenty-seven cases, 33.7 per cent., were under treatment 54.8 days. Twenty-four were recorded as improved and three cases as cured. Out of the one hundred and sixteen that were not treated with cundurango, one hundred and seven died—92.2 per cent.—in an average of twenty-two days from the time of admission. Nine cases were dismissed; five improved, and four in the same condition as when admitted. Since the publication of Reiss's statistics, Aser has given the decoction in doses of from six to eight teaspoonfuls daily, as advocated by Reiss. A large number of cases thus treated in the Polyclinic had shown no benefit therefrom. Of nine cases handled in the Rothschild hospitals, six were dismissed improved, and three died. In his private practice, however, Aser was more successful, and obtained results in two cases which served to give him more faith in the efficacy of the drug, and this is so plain that we quote it.

Herr M. S., aged 50; except for a chronic catarrhal affection of the stomach covering a period of time from 1865 to 1870, had been healthy up to November, 1886,

when he was taken very ill and consulted a homœopath, and remained under his treatment until January, 1887, when he came to Prof. Aser, who diagnosed a tumor in the pyloric region. He immediately put him on two teaspoonfuls cundurango decoction daily. The tumor continued to increase in size while the body weight decreased. The patient also showed marked cachexia.

Up to the 21st of April the patient had lost twelve pounds, and the tumor, now the size of a walnut, was painful on pressure. Aser considered the diagnosis of carcinoma ventriculi as certain, and so stated to the family. In June the patient went into the country, and continued to take from six to eight teaspoonfuls of the drug daily. His weight remained about the same until October, when it began to increase. When Aser saw him again in November, he was very much surprised at the change. He was still thin, but had lost the cachectic appearance, and all trace of resistance in the pyloric region had disappeared. The treatment was now discontinued. The patient continued to improve, appetite good, was able to resume his occupation, and ascribed his cure to cundurango, which he said had given him back his lost health. s.

ANTHRAROBIN, A NEW THERAPEUTIC AGENT IN THE TREATMENT OF PSORIASIS, HERPES TONSURANS, ECZEMA MARGINATUM, PITYRIASIS VERSICOLOR, ETC.—It is claimed by Dr. Gustav Behrend, docent in Berlin, who has experimented considerably with this new preparation, that it does not produce any inflammation of the skin, and can therefore be used on the face and head, also on the genitalia. One of the serious objections that have been urged against chrysarobin has been its irritating action, which is so well known that it is seldom used in the face or on the head. Dr. P. Guttman, in discussing the comparative merits of the two agents before the Berlin Medical Society, said that he had used anthrarobin in the treatment of six cases of psoriasis with beneficial effect. The agent cured the disease, but worked slower than chrysarobin, even when used in a much stronger concentration. In order to show the comparative merits of the two drugs, he

presented a patient that had psoriasis over the entire body, and who had been treated differently on each extremity. The right arm had been rubbed daily with a five per cent. chrysarobin salve, while a twenty per cent. salve of anthrarobin had been applied to the left arm for a similar length of time, and a twenty per cent. alcoholic solution of anthrarobin had been used on the left leg once daily. The right arm, which had been treated with chrysarobin, was entirely healed, while the left arm, treated with anthrarobin, would require several more days treatment; also, the left leg, upon which the alcoholic solution had been used. Dr. G. went on to say that he considered the remedy an addition to our pharmacopœia, and that it had some excellent features over chrysarobin. He had used it in five other cases in comparison with ichthyol and white precipitate, in the face and on the head, and had produced neither a dermatitis or conjunctivitis. It had the failing of dyeing the hair red, which, however, compared with the danger of a conjunctivitis when chrysarobin was used, was not to be taken into consideration. Several points were brought out in the discussion regarding the cause of irritation in chrysarobin. Dr. Behrend said that he had often noticed that when chrysarobin was used in solution it was more irritating than when used as a salve; also that we must avoid the use of alkalies when using chrysarobin. He had in many cases found that as soon as the patient used soap an acute dermatitis was set up with intense itching, so that many times sleep was impossible. This was allayed by the use of a weak acid, but the therapeutic effect of the chrysarobin was weakened thereby. The presence of the alkali rendered the more rapid oxidation of the chrysarobin possible. The same was true of anthrarobin, and its efficacy could be increased by first smearing the body with soap, which he often did.

Dr. Behrend describes anthrarobin as a yellowish-white powder, somewhat coarsely granular, which gives a characteristic irritation to the mucous membrane of the nose. It mixes easily with lard, oil and lanolin. It is thoroughly soluble in alcohol and water. It is

miscible, in the strength of ten to one hundred, in glycerine.

Dr. Behrend suggests the following formulæ:

R Anthrarobini grms 10—3ijss
Ol. olivæ grms 30—3i
Lanolini grms 60—3ij
M. et ung. ft.

R Anthrarobini grms 20—3v
Ol. olivæ grms 30—3i
Lanolini grms 40—3jss
M. et ung. ft.

R Anthrarobini grms 10—3iiss
Ol. olivæ grms 15—3ij
Axung. porci grms 75—3ijss
M. et ung. ft.

S.

CAN A WOMAN BE RAVISHED WITHOUT HER KNOWLEDGE DURING HYPNOTIC SLEEP?—Brouardel believes this to be possible only under certain very favoring conditions. If a man who is agreeable to the somnambulist offers suggestions to her, which are acceptable or of an indifferent character and not offensive, she submits herself to them; but if the suggestions are revolting to her personal affections or her natural instincts she opposes to them a resistance which is almost insuperable. One may easily lead the hypnotized subject, for example, to sign a receipt for money; but if she has preserved her normal chaste instincts, anything contrary to those instincts will be sought in vain. But, on the contrary, if the sentiments and the acts offered by the magnetizer to his subject correspond with her own, she obeys readily his suggestions. In the great majority of cases, however, a woman does not recall in her waking state what happened to her in the state of somnambulism and *vice versa*, yet the same feelings affect her in both states.—*Boston Med. and Surg. Jour.*

An Ohio physician, who brought home for microscopic examination a portion of the throat membrane of a diphtheria victim, permitted his children to look at it under a glass cover. Shortly after his entire family was stricken with diphtheria, and two of the children and himself have since died. Five children are yet down with the disease and are in a critical condition.—*Philadelphia Public Ledger.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 1, 1888.

EDITORIAL.

SMALL POX.

THE occurrence of a few cases of variola in this city appears to have caused wide spread and very unnecessary alarm. The disease is not "raging," the schools have not been closed, the infected houses have not been flagged, the hospital for contagious diseases is not full, nor are any of the curious rumors to which fear gives birth in the least degree veracious.

Few persons outside of the city are aware of the completeness of the precautions taken by the Board of Health to prevent an outbreak of this disease. The city is divided into eighteen districts, in each of which resides a Vaccine Physician. This gentleman makes domiciliary visits to every house in his district from once to four times a year; vaccinating all who desire the operation, free of charge. They are also required by law to keep at all times a supply of virus for gratuitous distribution to any physicians who may apply for it.

Whenever a case of small-pox occurs, the physician in attendance is obliged to at once notify the Health Officer. This functionary sends a card to the vaccine physician of the district, directing him to call at the infected house and those in its vicinity, to notify the inhabitants of the proximity of small-pox and urge upon them the importance of vaccination. Were it not for the negligence or prejudice of individuals, this system would effectually prevent the occurrence of small-pox. As it is, there is scarcely a chance of this disease becoming ever moderately prevalent.

The vaccine physicians are almost invariably men who command the confidence of their districts. They are the best vaccinators in the world; having the skill of, and deserving the consideration given to, specialists in other departments. No one who is familiar with the pains taken by these gentlemen in the study of vaccinia, and in the discharge of their arduous duties, can fail to wonder at the parsimony which places their remuneration at the paltry sum of forty cents for each vaccination. For this, the wealthy city of Philadelphia expects cultivated professional men, of unusual skill, to sacrifice their private practice in preserving the city from the most loathsome of pestilences!

While it is not at all probable that we are to have a visitation like that of 1872, there is an easy method of rendering it wholly impossible. In a city containing a million inhabitants, there is a certain proportion which furnishes possible food for the disease. This is the class who have neither had small-pox, nor are protected by efficient vaccination. Every person who becomes vaccinated lessens the possibilities of disease. It is the duty of every good citizen to see that neither he nor his household furnishes food for a public danger. Were this fully comprehended and were each for himself to perform his duty, small-pox would disappear from the earth, and live only as a memory.

W. F. W.

SURGERY IN NEW YORK.

THREE great men, by the emergencies to which their physical condition gave rise, have recently directed public attention to New York surgery. In two cases the result has been unfortunate, and only Dr. Sands has had the good luck to bring his patient through with safety.

By the newspaper accounts we learn that Roscoe Conkling died of meningitis, which the evacuation of pus from the mastoid cells was too late to prevent and failed to relieve. To those who are familiar with the work done by Garretson with the surgical engine, the statement that Mr. Conkling's surgeons opened the skull with the chisel occasions some surprise. No matter how carefully the malleting is done and how delicate the surgeon's touch, even though the mallet be covered with leather, as the secular press reports, no such delicacy and accuracy are possible as are attained by the use of the swiftly revolving burr.

It would not be amiss for the New York surgeons to invite Garretson to give them an exhibition of his work.

Dr. Cornelius R. Agnew, died of perityphlitis, for which laparotomy was likewise unavailingly performed. Even among the throngs of learned and skillful surgeons whom the metropolis contains, Dr. Agnew's death will leave a gap not easily filled. His great record as a patriotic citizen during the war will be long remembered, as well as his work in ophthalmology and otology.

To appreciate the work which Hammond has done, one has but to notice the frequency with which his writings are quoted abroad, especially by the German neurologists. Thanks to the skill and the good fortune of Dr. Sands, this active member of our profession will probably survive to instruct and interest us with the charming products of his pen for years to come.

W. F. W.

THE RECOGNITION OF HUMAN BLOOD STAINS BY THE MICROSCOPE.

AT the meeting of the Medical Jurisprudence Society of Philadelphia, held on the 10th inst., the important

and interesting subject of the recognition of human blood was under discussion. The subject was introduced by Dr. Formad, the Coroner's physician, who read a paper entitled "Microscopical Examination of Blood from a Medico-Legal Standpoint." An incidental feature which gave special importance to the paper was the statement by Dr. Formad, which he was reported as having made on the witness-stand in a recent trial for murder in this State, that he could always recognize human blood by the microscopic appearances and tests. This advanced position however, was not sustained by the remarks of the lecturer, and when taxed with it during the discussion, he denied ever having made such a positive statement, and explained that the stenographer had failed to get all of the answer he had given to the interrogation in the trial referred to. The drift of the discussion was decidedly opposed to the claim that human blood clot could be absolutely recognized beyond the possibility of mistake. In many cases, it is true that valuable evidence of a negative character can be thus obtained, but the most that can be affirmed at present of any given specimen, is that the result of the examination is consistent with the theory that the stain was due to human blood, and that it was derived from some of the higher mammals.

THE REGISTRATION LAW.

THE editor of the *Journal of the American Medical Association* states that we were mistaken in supposing him to be an opponent of State Registry laws, and is even "amused" at our mistake, in view of his consistent record of the last fifty years in favor of higher medical education.

Whether the medical editor can be reasonably expected to recognize the

hand of the writer in an unsigned editorial and to discount it by the author's record, beginning long before the editor was born, we leave our readers to decide. It is certain that while Dr. Davis fully illustrated the defects of the Pennsylvania State law, he failed to give it the credit it deserves and left his approval to be inferred.

Dr. Davis thinks that the duty of conducting these examinations should be vested in a board, totally distinct from the teaching bodies, and that Pennsylvania graduates should be equally compelled to appear before this board. In this we agree with the writer, except as to the composition of the board.

By excluding the faculties of the colleges, he would bar out every person who has had any experience in holding such examinations, and put them in the hands of men inexperienced in teaching. Besides, there would be a constant danger of the board falling into the hands of those who favored one school or were unfriendly to another, and hence injustice would be probable. Medical colleges are expensive affairs, and it would deter the trustees from sinking large amounts in buildings and apparatus if there were a possibility of their graduates being excluded by an inimical board of examiners. If, on the contrary, such a board were to include one member of each faculty, and a unanimous vote were required to pass a candidate, each college would be fully protected in its rights, while the natural pride each would take in sending creditable representatives before the board, would keep up the standard to the highest point.

In evidence of the benefits conferred upon the State by the present law, we place upon record the following items:

One of our foreign exchanges states that a German pretender to medi-

cal degrees succeeded in evading the scrutiny of the authorities so completely that he was accorded official position in the German army, and was even decorated for his services.

The *British Medical Journal* calls attention to the fact that, even at this late day, only two of the seven Dublin schools are provided with facilities for practical laboratory work, in the shape of pathological museums.

In our duties as examiners, it has frequently been found necessary to refuse endorsement of documents purporting to be diplomas, but which were in reality only licenses to practice pharmacy, and such minor surgery as barbers do, etc. Had these documents been submitted to the ordinary county officers, it could scarcely have happened that the frauds would have been detected.

The *Canada Lancet* states that "any youth of 16 or 17 years, of but moderate ability, having taken advantage of the public and high school privileges so common in Canada, finds but little difficulty in passing the matriculation examination of the Canadian colleges. But that such limited attainments thoroughly qualify him to comprehend and digest medical science, and to attend with the greatest advantage to himself, our medical colleges, is undeniably absurd."

W. F. W.

PERSONAL.—Feeling the necessity of relief from duties that have been getting onerous, and in view of some special work which will engross much of his time, Dr. Woodbury has withdrawn from the management of this journal. Dr. Waugh has now the entire ownership and responsibility of conducting the *TIMES*, and will continue the energetic policy which has characterized it of late, and will strive to make it even more practical and useful

to its readers than it is at present. Dr. Woodbury will still contribute editorially and otherwise to its pages, and will ever be warmly interested in its success.

AGNEW JUBILEE.—The Alumni, and students of the Medical Department of the University, with a number of invited guests, attended a jubilee in honor of the semi-centennial anniversary of Prof. Agnew's entrance upon the practice of medicine. The exercises were held in the chapel of the University of Pennsylvania on Tuesday last (24th inst.) Addresses were made by Prof. Agnew, Provost Pepper and Prof. S. W. Gross. A pleasant incident was the presentation of a jewel to Dr. Agnew, with an address by Wm. R. Lincoln, of the graduating class. Music was supplied by the University Glee Club and Orchestra. The memorable occasion was truly enjoyable, and afforded all an opportunity of meeting the veteran professor, who appeared in excellent health.

YELLOW FEVER INVESTIGATION.

DR. GEORGE M. STERNBERG, U.S.A., was authorized last year by special Act of Congress, and commissioned by the President of the United States, to proceed to Brazil and Mexico, and investigate the method of inoculation for protection against the yellow fever, and to report upon the value of the method. At a special meeting of the College of Physicians of Philadelphia, held April 21, he made a preliminary announcement of his conclusions, prior to his departure for Havana, to complete his pathological investigations. He declares that both Carmona and Freire are mistaken; that the specific germ of yellow fever has not been discovered; and that inoculation, as practised at Rio and Vera Cruz, is without scientific value.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

MEDICAL STUDENTS IN LONDON.

ANOTHER winter session has come to an end and finds the medical students of the metropolitan medical schools no better off than they were, in the matter of degrees. The scheme of the conjoint Board of the Colleges of Physicians and Surgeons to endow that body with the power to grant degrees in medicine has had the effect of postponing the final decision still further, as the government has been induced in consequence of the opposition raised by this crude scheme to promise to issue a Royal Commission. The University of London was the body which brought the necessary pressure to bear on the government, and a well-known physician and teacher in London recently remarked that the University even yet had the game in its own hands; the Royal Commission will probably consist of a few strong men, who will not feel any particular awe for the senior fellows of the College of Physicians who have succeeded in leading the younger fellows into the quagmire, in which they are just now bogged. In a body constituted as is the College of Physicians, the younger fellows have just as much power as the older if they choose to use it. So far they have been curiously blind to their own interests which are bound up, not with the College of Physicians, but with the Medical Schools; as constituent parts for teaching universities, the medical schools, and the teachers therein, would be far more influential than under the conjoint board scheme.

MEDICAL INTERESTS IN PARLIAMENT.

The only government bills introduced into Parliament this session which involve any medical interests are the Lunacy Act Amendment's Bill, and the Local Government Bill. Nobody thinks about private members bills until they have, in the proportion of about 1 per mille, passed, when they are commonly found to be unworkable, and are either allowed to remain a dead letter, or are repeated indirectly by a new act

Americans who have never tasted the sweets of unmitigated representative government can hardly guess how extremely badly compiled most English acts are. The sanitary acts are so poor, thin, and contradictory that we are really governed in these matters, not by the acts, but by the decisions of the judges, perhaps altogether, and after all, not an unfortunate result. The Local Government Bill will probably pass, as nobody cares to appear so illiberal as to oppose its main principle. Whether it will do much good or not remains to be seen; the chief proposal is to create county boards to manage the business of each county; the local sanitary authorities will apparently work under the county board. Unfortunately, the act will be one which will have to work itself, to a large extent at least, without the assistance afforded by explanations from the bench.

The Lunacy Act Amendment's Bill ought to put a stop to such disgraceful actions as that recently tried at the Bristol assizes. A lady who had been confined in an asylum on the petition of her nearest relatives and of the Mother Superior of the convent in which she had taken lodgings, brought an action years afterwards against two physicians who had signed the necessary certificates. These gentlemen, who received no fee, and who had absolutely no interest, pecuniary or personal, in the confinement of the alleged lunatic are yet put to great expense to defend an action which it ought never to have been possible to bring. If our "legislators" or "elective representatives" can find time to attend to such a trivial matter, persons certified as lunatics will in future be taken before a magistrate who will decide whether the alleged lunatic shall be committed to an asylum (placed under restraint), twenty-four hours later the lunatic will be served with a notice and can appeal to a second magistrate who will be required to go to the asylum and hold another inquiry, his decision being final. The clauses in the bill which provide for this solemn tomfoolery were probably drafted by ex-lunatics, but if they have the effect of shifting some of the responsibility on to the magistrates' shoulders, they will have a good effect.

NEW PRESIDENT OF THE COLLEGE OF PHYSICIANS.

Sir Wm. Jenner has been succeeded by Sir Andrew Clark, as President of the Royal College of Physicians; Dr. Richard Quain ran Sir Andrew Clark very close, being actually at the head of the poll in the first ballot. The new President has recently resigned his active duties at the London Hospital; he is commonly reported to have the largest consulting practice in London and is a man of very strongly marked character. He is a fluent and forcible speaker, is possessed of remarkable energy, and is a prodigious worker. He belongs to the new school which take pathology and practical therapeutics, rather than tradition, as its guides, and is thus intellectually as well as chronologically the direct successor of Sir William Jenner.

THE DIETARY OF INFANTS.

The dietary of infancy is a subject of unfailing interest, and one upon which every parent considers him or herself competent to speak; yet it is a subject upon which there is room for considerable difference of opinion. The systems of infant feeding at present in vogue are largely empirical; there are but two physiological facts which are of distinct assistance. One of these is the composition of human milk, and the other the absence of amylolytic ferments from the digestive tract of the infant. Upon the relatively simple question of the chemical composition of human milk, however, most conflicting statements have been made, and Dr. Arthur V. Meigs wrote a book three years ago to prove that human milk contained only about one per cent. of casein; previous analysts having put it down as high as three or four, and in one case seven per cent. As to the second fact, it seems to have been taken for granted by most writers that, as the saliva had no action on starch, the pancreatic juice was also inactive. A few observations which I have recently made appear to show that this belief is correct; and it is at least certain that starch may often be recognized in the motions of infants fed upon starchy foods. About a year ago, my friend and colleague, Mr. R. W. Parker, read

a paper before the Medical Society of London, which was published in the *British Medical Journal* (Vol. I, 1887, p. 772), in which he maintained that starch, if valueless to the infant economy, was yet innocuous; and that many of the evils attributed to starch foods were really traceable to other concomitant circumstances. His views have been a good deal canvassed and in many quarters misunderstood. I therefore asked him to write me an "open letter" on the subject, and he has been good enough to comply in the following terms:

MR. R. W. PARKER ON THE USE OF STARCH.

"You ask me about the artificial feeding of infants. Doubtless you are acquainted with my views on the question of starch foods. Some of my friends regard these views with ill-concealed pity, and reproach me for advocating, as they put it, *indirectly*, the practice of giving starch food. Let me then, in the first place, disabuse your mind if you have any lingering doubts on this point, and theirs, should this statement come within their cognizance. In saying that starch food is not so actively injurious to young infants as is generally taught, I am far from advocating its use. The chief purpose of my paper 'On the Alleged Dangers of Starch-Containing Foods during the Period of Infancy,' read before the Medical Society, was 'to draw greater attention to what I consider, far more than starch foods, as the real causes of the marasmus and mortality among young children, especially among the children of the poorer classes: viz., congenital debility *plus* insufficient and inadequate maternal nursing.' In the great majority of cases, those children which are deprived of breast milk fail also to get the thousand and one little maternal attentions which are quite as essential to health as the milk. Now as to the causes of this congenital debility, they are not far to seek. Those who have any acquaintance with the outpatients of a hospital in a poor district of a large city have all the materials to hand on which to form an opinion. Early, ill-considered marriages, often before the parents are themselves fully developed; irregular modes of

living; frequent child-bearing; impaired health from various causes; very scant living, with periods in between of almost absolute starvation, are the most prominent causes of congenital debility in the offspring. Among the richer classes, the various exactions of social life, ill-matched marriages, late hours, money cares, the struggle to keep up appearances, and similar causes, do not fail to leave their impress on the progeny. But whereas, among the poor, hardship of every kind continues to dog the footsteps of the unfortunate children, in the better classes wealth secures more care for children, and hence the effects are less obvious, though they are palpably operative. I need not say more in defense of my thesis. There will never be any appreciable diminution in the death-rate of children during the first year of life until we apply *prevention* rather than a cure for the causes on which this high mortality rests. I shall hope that a time will come when infant-feeding will be a little less talked about, and when a great deal more attention will be bestowed on the feeding and the general surroundings of pregnant mothers; for I shall then expect to see some good results.

"Meanwhile, what is to be done under existing circumstances, and more especially for those children whose mothers are either dead or unavailable? The matter is of chief importance in the case of weakly children; the strong ones seem to thrive notwithstanding a very unphysiological line of treatment. Such must be left to take care of themselves. The more weakly the child, the greater the danger and the difficulties. In the first place, I always caution against giving weakly children too much food. There is an almost irresistible tendency to give such children more than enough, in the hope of making them grow. In many such cases the food has been blamed, whereas in reality all blame should have been laid on the nurse. Then I next caution against any attempt to limit such a child to one particular kind of food. Change and variety are just as wholesome and just as necessary for a baby as for an adult, and the result of a judicious change is just as obvious as are the ill-effects of forcing on it one monotonous diet.

In the third place, cleanliness and care in the preparation of the food will be as highly appreciated by a child as by an adult. Many a time a food is said to disagree, when in reality the trouble lies in its faulty preparation. Let it be borne in mind that overcooking renders all foods very indigestible, though it may not alter the appearance of the food. For instance, in the case of beef tea, with which many small babies are dosed. To be useful, beef-tea must be made with great care: the lean meat must be chopped fine, and should then be digested, over night, in cold water; this infusion should be drained off and the meat pressed. The meat should then be digested with an equal amount of hot water for two or three hours in a water-bath, and the hot infusion strained and the meat again pressed. The two infusions should then be mixed, and a pinch of salt added. Of the mixed infusion, a sufficiency for a meal should be warmed to about 150° F., and when cool, enough given, either with a spoon or from a sucking bottle. If beef tea is made in an oven without the help of a water-bath, much of the goodness of the meat is lost: the albumen is coagulated and so overcooked as to be barely digestible—a statement which, *mutatis mutandis*, applies to all other kinds of food which are overcooked. In the fourth place, fresh home-made foods are, as a rule, far better than elaborated and prepared foods. For young infants, fresh milk should always constitute a chief ingredient. Sometimes it is necessary to precipitate a portion of the casein of cows' milk; in other cases the addition of a little baked flour, or of barley water, will prove of service in suspending the casein, and prevent that wholesale coagulation of cows' milk which takes place in the presence of the gastric juice of the infant's stomach. Baked flour is an admirable food when added in small quantity to milk. The flour should be placed in a cup in an oven and baked slowly until of a delicate brown color; then, when cool, it should be rolled fine again. Malt is another excellent food, ground fine and used with milk in the same manner as the flour. Fruit juice, when obtainable, is an excellent adjunct to the usual food,

and very wholesome and appetizing. It may be given to the youngest child without harm. In winter time, when fresh fruit is not to be obtained, a little baked apple or pear will be found very useful.

"So much for the general question. As to what should be done in particular cases, I feel it far more difficult to reply; for in each instance there is a personal element which must be carefully reckoned with in any given case. I inform myself what has been done, what food has been given, how often, how much, and how prepared. If I find that a child is actively suffering from the effects of injudicious dieting and treatment, I endeavor to set these effects right again and continue with any diet that may have seemed to suit the child. Gastric and intestinal catarrh are commonly present in cases that have been improperly dieted, and unless this catarrh can be cured, a mere change of diet will prove ineffectual. I have occasionally commenced the treatment of such cases by carefully washing out the stomach with warm water, containing just sufficient carbonate of potassium to make it alkaline; subsequently giving small doses of opium to keep the child quiet, and administering all food for 24 to 48 hours by the rectum. A marvellous change will sometime be seen as the result of such treatment. Among drugs, one of the most useful is carbonate of potassium or of sodium. An infant's secretions are generally very acid; moreover a milk diet increases this acidity; hence the value of a little antacid from time to time——"

THE PRACTICE AT THE SHADWELL HOSPITAL.

At the Shadwell's Children's Hospital, which is the most important infant's hospital in London, all hand-fed infants are, as a matter of routine, unless special directions to the contrary are given, placed on a mixture of cow's milk, lime-water, and barley water. The barley water is made from the so-called "prepared-barley," and is very thoroughly boiled, the result being a thick, semi-transparent fluid of about the consistency of cream. A very large proportion of infants even among out-patients begin to do well on this mix-

ture almost from the first; I find that in the wards it is not sweetened as a matter of routine. If this mixture disagrees, either pancreatised milk (described below) or milk diluted with lime water, and enriched with Mellin's food is given. This is a very useful combination and is as a general rule very well borne; in some infants its long continued use is followed by constipation. In severe or obstinate diarrhoea it is the custom to withdraw all milk for a time, and to give only veal broth, thus giving the intestines an almost complete rest, since the broth must be absorbed by the stomach in great part if not altogether.

ARTIFICIAL HUMAN MILK.

The artificial human milk recommended by Prof. Frankland has been largely used by the richer classes in London, and is, or was, supplied to its customers ready made by one of the milk companies. It is prepared as follows: Heat half a pint of skimmed milk to 96°F., and add a little rennet (a piece of rennet about an inch square, Playfair); let it stand over a lamp or in hot water for ten minutes, until it is quite warm, taking care not to let it over-heat. Remove the rennet and break up the curd quite small with a knife, and let it stand for a quarter of an hour. Strain through muslin into a small saucepan and boil quickly; measure out one-third of a pint and add to it 110 grains of sugar of milk, and after stirring to dissolve the sugar of milk let it stand till cool; then add two-thirds of a pint of perfectly fresh milk and two teaspoonfuls of cream and stir. The "artificial human milk" thus prepared must be kept in a cool place, and the quantity used for each feeding warmed when it is wanted; the stock must be renewed every twelve hours. For the first month Dr. Playfair recommends rather more than one-third of whey and rather less than two-thirds of milk.

PANCREATISED MILK.

Dr. Eustace Smith prefers Sir William Robert's pancreatised milk in all cases where ordinary cow's milk is digested with difficulty; it may be prepared in the following way, which is a

great simplification of the original method: Half a pint of boiling water in which bicarbonate of soda, gr. xx., has been dissolved, is mixed with one pint of fresh cow's milk, and two teaspoonfuls of Benger's or an equivalent quantity of some other good pancreatic solution is added and the jug placed on a stove or range under a "cosey." After an hour the mixture is boiled and is ready for use; the casein is digested and one of the great difficulties is thus overcome; if allowed to digest too long the mixture acquires a bitter nauseous taste.

COLD PACK IN HYPERPYREXIA.

The report of three cases of rheumatic hyperpyrexia, successfully treated by the ice-pack in two cases, and by the cold bath in the third, raised a rather interesting discussion, during which Dr. MacLagan attempted to draw a sharp distinction between pyrexia and hyperpyrexia, maintaining that the former was due to increased metabolism, while the latter was neurotic. This theory, which is a favorite with many physicians, appears to be based solely upon certain clinical facts which have been probably incorrectly interpreted; it is admitted that cold acts in hyperpyrexia through the nervous system, the strong impression on the skin leading to a stimulation of the heat centres, and there is no reason to suppose that it acts otherwise in pyrexia; the theory that pyrexia is directly due to increased metabolism produced by the morbid agent will not stand.

ANTIPYRIN AND RESORCIN IN WHOOPING COUGH.

In spite of all that has been written about it, the treatment of whooping-cough is still an opprobrium medicorum; nearly all the remedies which have been found of any use belong to one of two classes, antiseptics or nervous sedatives. I have recently made use of two drugs, one belonging to each class, with both of which fairly good results have been obtained. My experience with it is as yet limited, but, so far, I have found antipyrin the most successful direct sedative which I have used. It diminishes the severity of the paroxysms and often entirely

suppresses the whoop, even if given when the second or paroxysmal stage is at its worst; more than this it cannot be trusted to do, though even so much is of course a considerable gain. The bronchitis and catarrh are not at all relieved by it, so far as I have observed; it may be combined with vin. ipecac making a very elegant mixture.

R. Antipyrin.....gr. ij
Vin. ipecac.....ʒ v
Aq. ad.....3 j

This dose may be given every three or even two hours to a two-year-old child. Antipyrin was first used in whooping-cough by Sonnenberger, who recommended that it should be given early, and stated that not only was the duration of the disease shortened, but it ran a milder course. Dellmuth also spoke favorably of antipyrin and Dr. Crozer Griffiths has recently reported a series of highly successful cases (*Therap. Gaz.*, Feb.). Antipyrin is decidedly more rapidly successful than belladonna, but it must be given in adequate doses and sufficiently often. The antiseptic with which I have obtained satisfactory results is resorcin as a local application: The method was introduced by Dr. Moncorvo and was warmly taken up in this country by Dr. W. H. Barlow, of Manchester. A solution of the strength of about two per cent. should be used and thoroughly applied with a big brush or swab to the naso-pharynx every two hours at first. The application generally brings on a paroxysm, but after twenty-four hours the frequency of the paroxysms begins to diminish, and though the disease is not stopped, it is rendered so mild that it can hardly be said seriously to interfere with the patient's comfort. When, after three or four weeks, apparently cured, I have found that a cessation of the application of the resorcin is often followed by a relapse, so that it is safest to continue the application three times a day for six or seven weeks. The greatest successes, however, have been in young adults and children old enough to use a gargle.

R. Sol. resorcin.....4%
Glycerin.....āā....M. ft. garg.

To be used at first every two hours, gradually increasing the intervals until

it is used only the first thing in the morning, the last at night, and once in the middle of the day.

SENSATION IN SUTURED NERVES.

The recovery of sensation in the parts supplied by a severed sensory nerve after suture is a standing marvel; a good example of this wonderful example of the reparative power of the human body was exhibited by Dr. F. Marsh to the Midland Medical Society early this month. The patient had cut her wrist, severing not only the median nerve, but the ulnar artery; sensation was lost in the palm, thumb, index and middle fingers. Eighteen weeks after the accident she came under Dr. Marsh's care and he at once cut down on the nerve. The proximal end was bulbous, and connected by a thin strand of tissue with the distant end which was, as is usual, atrophied. The two ends were refreshed and sutured with cat-gut; union of the wound by first intention was obtained; seventeen days after the operation, sensation had returned to the palm and to the proximal ends of the thumb and middle fingers, and ten days later sensation had extended to all the parts affected, except the index finger. The explanation of this failure of the index finger to recover which was given by the operator was that the fibres supplying the digit had not united; but it is not easy to accept the theory of a union of fibres at all. Ranvier found by experiment in rabbits that the axis cylinder grew out from the central end of the divided nerve and so practically made a new nerve, at least that is the inference, though it appears nearly incredible. Dr. Gowers says that it is highly probable that the process in the peripheral part of a nerve is influenced by the connection with other nerves, and the recurrent course of anastomosing fibres; this is an extension of a theory which originated, I believe, with Sir William Gull, but the suggestion still leaves a great deal to be explained, for this "influence" of the anastomosing fibres is ineffectual to produce any return of sensation, ineffectual also, as was the case in Mr. Marsh's patient, to prevent intractable ulceration, until the ends of the severed nerve are brought into opposition. It is certain that the

axis cylinder in the peripheral part of the severed nerve is destroyed by the protoplasmic cells in a very short time, so that a development of a new axis cylinder must necessarily precede the return of sensation.

EXCISION OF LARYNX.

Dr. Felix Semon reported at the last meeting of the Pathological Society a case of epithelioma of the larynx in which excision of the right half of the larynx was performed by Sir William MacCormac; an isolated growth on the under surface of the left cord was excised at the same time; the patient died of pneumonia on the third day. It is reported that the last two cases operated on by Dr. Hahn, of Berlin, have also ended fatally, and that Herr Kayser, the leader of the social democrats, has died immediately after a partial extirpation of the larynx performed by Professor von Bergmann.

ECZEMA IN CHILDREN.

Carbolic acid ointment is a useful application in the sub-acute crusting eczema, frequently met with about the mouth and nose in children; it appears to be often started by an outbreak of herpes labialis which the child irritates by picking and rubbing. The strength should be about twenty grains to the ounce of vaseline; or the ointment of the British Pharmacopœia may be used, which contains vaseline 12 parts, hard paraffin, 6 parts, and pure carbolic acid 1 part.

CURETTING CARBUNCLE.

Mr. Herbert Page, following Mr. Pridgin Teale, of Leeds, has recently had good results by treating carbuncle by scraping with a sharp spoon; the method is certainly an improvement on the treatment by potassa fusa, the same result being attained in a much shorter time. In an exhausting disease, such as carbuncle, time is one of the elements of the cure.

REGISTER OF GREAT BRITAIN.

The new *Registers* of the General Medical Council have just been issued; it appears from the *Medical Register* that there are now no less than 27,246 medical practitioners registered in the

United Kingdom; this includes the medical officers of the army and navy, and a large proportion of the Englishmen practising in the colonies and abroad; but even so it would seem that we are an over-doctored race; the rate of increase is great, for there are five English medical practitioners now, for every four in 1876. The dentists on the contrary, have actually diminished in number from 5,289 in 1879, to 4,899 in 1887. This decrease, however, is more apparent than real; the Dentist's Act was passed in 1879, and every chemist who had ever extracted a tooth claimed to be registered as a dentist, and swelled the *Register* to unnatural proportions. These "unqualified dentists" are now beginning to disappear rapidly, their ranks being thinned by death or retirement; they now number 3,889, whereas in 1879 they numbered 4,806; in the same period the "qualified dentists" have increased from 483 to 977. DAWSON WILLIAMS.

BALTIMORE.

SEVERAL of the medical colleges have already held their commencements, and sent out over a hundred candidates for practice. It is to be hoped that all of the latter will realize their anticipations. In spite of the almost universal outcry against medical colleges, I believe that most of them are honestly striving to elevate the standard of professional education. That great advances have been made in this direction in the last twenty-five years must be admitted by all who have given the subject unprejudiced attention.

The legislature which has just adjourned passed a law much needed in this State, namely, a law regulating the practice of medicine. The act is based upon that in force in Illinois and some other States, and it is hoped will result beneficially to the profession and public. The execution of the law is entrusted to the State Board of Health, and, if this body performs its duty, we shall soon be rid of the horde of shameless quacks by whom the State is infested, who delude the public as old Sir Thomas Browne has it, "Not only unto pecuniary defraudation but the irreparable deceit of death."

An ineffectual attempt was made to have a law passed making national provision for the study of anatomy. The bill failed probably because not sufficient interest was manifested by those most concerned. The professors of anatomy in the schools here petitioned in favor of the law, but probably thought it undignified to engage in missionary labor among the members of the legislature. The result is that no one cared enough about the matter to push it through. We shall, therefore, have for two years more, the scandal of desecration of private cemeteries for the purpose of supplying material for dissecting rooms. No efficient law to regulate the supply of dissecting material will pass until the law makers have plainly placed before them the alternative: either a free supply of unclaimed bodies from hospitals and other public institutions, or robbery of private cemeteries. I venture to predict that as soon as the responsibility for either alternative is clearly stated, the first will be unanimously adopted.

A few evenings since the initial steps were taken looking to the organization of an Electro-therapeutical Society in this city. The organization has been effected, and the first stated meeting will take place on the evening of April 30. The programme for the first meeting comprises papers on the history of electro-therapeutics, electrical nomenclature and measurement, and clinical reports from various members. Electrolysis in its various applications is at present being studied by a number of active and earnest workers, and the indications point to some useful work in this line by the members of the new society.

The Medical and Chirurgical Faculty of Maryland will hold its next annual meeting April 24-27, inclusive. Dr. I. E. Atkinson is President, and the subject of his address will be "Medical Charities of Maryland."

Quite a large delegation from this city will attend the meeting of the American Medical Association at Cincinnati. The idea is talked of to endeavor to secure the next meeting in Baltimore. As the first renewal of fraternal relations between the profession North and South after the late war

between the States took place at the meeting in this city, it is held that a "peace meeting" here would go far to heal the wounds that have been made in friendships during "unpleasantness" of the last three years. Added to this the completion of the Johns-Hopkins Hospital, and the probable opening of its medical school, would make it worth while for doctors to come and see how the "monumental city" keeps up with the times.

The legislature has appropriated six thousand dollars to aid the College of Physicians and Surgeons in extending the City Hospital. The extension is estimated to cost fifty thousand dollars, which will be almost entirely borne by the college. The new buildings will be erected on the spacious "city spring lot" adjoining the present hospital, which was recently acquired by lease from the city. The new hospital, like the old, will be under the immediate management of the Sisters of Mercy.

G. H. R.

NEW YORK.

MIDDLETON-GOLDSMITH LECTURE.—DA COSTA ON THE RELATION OF RENAL AND HEART AFFECTIONS.—CARTWRIGHT LECTURE, BY WM. H. WELCH, OF BALTIMORE, ON FEVER.—COUNCILMAN ON TUBERCULOSIS.—DEATH OF C. R. AGNEW.

The Middleton-Goldsmith lecture of the New York Pathological Society was delivered April 18, by Dr. J. M. Da Costa, of Philadelphia, on "The Relation of the Renal and Heart Affections." It was preceded by an interesting biographical sketch of the founder of the lectures who died since the last annual meeting, read by his intimate friend, Dr. John C. Peters.

Dr. Da Costa said it was the common belief that diseases of the heart were very likely to give rise to kidney disease. His own opinion, based on the statistics of the Philadelphia hospitals, was that diseases of the heart had no great tendency to lead to affections of the kidneys, especially chronic Bright's disease. Renal congestion, however, took place in about eight out of ten cases of mitral stenosis. It scarcely ever occurred from aortic disease, and

never, he believed, from pure hypertrophy of the heart. It was seen in cardiac dilatation. The congestion was passive. It was important to determine whether the kidney affection was destructive, or whether, as was usually the case, it was only a condition of congestion. Low specific gravity of the urine, shriveled, degenerated casts, uræmic symptoms, and retinitis were indications of a chronic affection.

With regard to the influence of disease of the kidneys in the causation of cardiac disease, he had found that out of 101 cases of renal affection, 41 showed valvular lesions of the heart. In 12 of the 41 cases the kidney disease was acute. In the remaining 29 it was chronic. Of the latter, in 13 there was marked history of rheumatism. Of 78 cases of acute Bright's disease, in 16 the valves of the heart were implicated, the kidney affection having preceded the cardiac lesions. Here, too, a large number of the cases gave a history of rheumatism, leaving the impression that the rheumatism had been the cause of the renal as well as of the cardiac affection. In the acute cases hypertrophy of the heart was not found. In chronic cases its existence was the rule.

How was the valvular complication to be determined clinically? It should be remembered that the heart murmur heard in chronic Bright's disease was often a blood murmur. As cardiac hypertrophy was likely to co-exist with the chronic kidney lesion, although no valvular lesion was present, such hypertrophy could not be taken as evidence that the murmur was due to a valvular lesion. But if the murmur was heard in the axilla and posteriorly at the angle at the scapula, it was organic. Then functional murmurs were strangely influenced by the act of breathing, which was not the case with murmurs due to valvular lesions. Sphygmographic tracings could not be relied upon as significant of a valvular lesion, in this class of cases, as their peculiarity might be entirely dependent upon the influence of the kidney affection.

Hypertrophy of the heart was the rule in chronic kidney disease, the change being due to the increase in the muscle and to fibroid degeneration.

Regarding the state of the vessels, there was no difference between those of the heart and those of the kidney; in both their lumen was encroached upon by muscular and fibroid increase of the coats, and in some cases the intima was thickened. Presently the heart began to fail, to undergo fatty change, to dilate—caused by insufficient blood supply. Pure cardiac dilatation might follow Bright's disease, but not often.

Why should hypertrophy of the heart take place? He thought none of the current explanations of this phenomenon were correct. Most of them implied that the resistance to the passage of the blood through the kidneys or elsewhere reacted on the heart and caused compensating hypertrophy. But in five cases of extensive cystic degeneration of the kidneys, in which the lesion must have existed for some time and offered as great resistance to the blood current through those organs as occurred in chronic Bright's disease, no cardiac lesion was found at the autopsy. In three of them there had been marked uræmia. There must then be something more than back pressure of the blood to cause the cardiac affection. It might be claimed that it lay in the blood; but why, then, did it not also occur in syphilitic endarteritis? Why did not cardiac hypertrophy occur in greater degree than it usually did in senile change of the arteries?

The speaker believed that the heart increased in size as the result of a general pathological process; of a general disease, and not of a local kidney affection.

The change, he thought, first took place in the nerve supply. He and Dr. Longstreth had examined the nerve supply of the kidneys and heart in as many as eleven cases, and in all they found a similar change, differing only in degree in different cases. In the ganglia supplying the heart were seen increased fibrous tissue, disappearance of ganglion cells, marked pigmentation, destruction of the free nuclei. He believed, therefore, that chronic Bright's disease was a general, not a local, affection. Some might differ from him, and regard the change in the nerves as a part of the general morbid

process rather than its determining cause. If his views of the nature of the affection were correct, we might expect new and more successful treatment. He was not prepared, however, to indicate what the treatment should be.

The Cartwright lectures were delivered at the new building of the College of Physicians and Surgeons, March 29, April 5 and 12, by Dr. William H. Welch, of Baltimore, who chose for his subject "The General Pathology of Fever." The lectures were closely followed by large and appreciative audiences, and have appeared in several medical journals.

Dr. Councilman, of Baltimore, delivered the first annual address before the Society of the Alumni of Bellevue Hospital, April 4, the title of his address being "Predisposition in Tuberculosis."

Thus it will be seen that New Yorkers are having the pleasure, through annual addresses and lectures, of listening to some of the highest medical talent throughout the country.

DR. C. R. AGNEW.

A great loss has been experienced in the death of Dr. C. R. Agnew, which took place of peritonitis, April 18. Out of respect to his eminent services in the profession, the Academy of Medicine adjourned its meeting on the 19th, immediately after the reading of the minutes and the passage of resolutions commemorating the deceased member. Although Dr. Agnew's name had become associated more particularly with ophthalmology, his mind was too broad and too active to work in a restricted field; and doubtless it was due as much to his wisdom, vigilance, kindness and labors for the general welfare, as to his great skill as an operative surgeon, that he won the admiration, love and confidence of his professional brethren and of the public. R. C. S.

MÜTTER MUSEUM OF THE COLLEGE OF PHYSICIANS.—In order to increase the usefulness of the Museum, and to add to its already remarkable collections, it is requested, that Fellows of the College and friends of the Museum, in the profession generally and public at large, will make it the repository of specimens which they possess.

ABSTRACTS AND NEW REMEDIES.

CLIMATE FOR CONSUMPTIVES.—KNIGHT, in the *Boston Medical and Surgical Journal*, makes the following suggestions as to a suitable climate for tuberculosis:

(1.) Those presenting the earliest signs of chronic tuberculosis of the apex, with morning cough, but little general disturbance, should live outdoors, in Colorado or New Mexico; at an altitude of 4,000 to 8,000 feet.

(2.) More advanced cases, with some consolidation, but no excavation, if the pulse and temperature range below 100, may go to the same localities; but if not, to Aiken, or the pine woods of South Georgia. When the morbid processes become quiet, a move may be made to the higher altitudes.

(3.) Hæmorrhagic cases should also go to the high altitudes.

(4.) Advanced cases, with hectic or cavities had better stay at home; unless they are possessed of sufficient means to obtain home comforts elsewhere, when they may be sent to Florida.

(5.) Cases of acute general infiltration should be kept at home. Those commencing like acute pneumonia should stay at home till the acute symptoms subside, and then remove to some low, dry place; cautiously changing to more elevated localities. Cases of acute exacerbations should pursue the same course.

(6.) Pneumonic cases, if young, should be sent up the hills. If over fifty, or with dilated heart, or very harassing cough, Southern California offers a suitable climate.

(7.) Those who are threatened with tuberculosis after pleurisy or pneumonia should go to high localities.

(8.) Laryngeal tubercle. For these cases Southern California answers well.

(9.) Complications may alter these rules.

Dilatation forbids high altitudes, while other cardiac cases should be carefully watched.

Acute nephritis is aggravated by high altitudes, but chronic Bright's disease is benefitted.

Patients with intestinal ulcers do badly anywhere.

REVIEWS AND BOOK NOTICES.

TREATISE ON HUMAN PHYSIOLOGY, FOR THE USE OF STUDENTS AND PRACTITIONERS. BY HENRY C. CHAPMAN, M.D. Philadelphia, Lea Brothers & Co., 1887. 8vo, sheep, pp. 945.

This new text-book on physiology is freely illustrated and handsomely printed and bound. The subject matter is a lucid exposition of the present state of the science of living bodies; and the facts of this department of knowledge are fairly presented in a style which is agreeable and attractive. We congratulate Dr. Chapman's students upon possessing so good a text-book, which also will greatly interest physicians who have been in practice for several years, and who wish to acquaint themselves with recent advances in this branch, which is the most important among the institutes of medicine.

We notice that one of our contemporaries made a savage onslaught upon this book, its chief objection being that there were enough text-books on physiology, and that this one was not needed. Clearly, the question goes deeper than this, as it involves the right of the author to teach his subject at all. Since Prof. Chapman is engaged in lecturing on physiology to the largest medical class in the country, his right to teach cannot be questioned; it rests with him as to the mode in which the instruction shall be imparted, whether orally alone, or by spoken and printed lectures, and no one can question his right to publish his book if he believes that this is a more satisfactory way of teaching than simply by didactic lectures. If those who are not his students do not like the book, they are not compelled to buy it. For ourselves, we think the work thoroughly representative, and will gladly recommend it to our students.

AUBERT, in a report to the Academie Francaise, speaks of the enormous development of some towns in Aisne. Oyonnoz, which in 1796 counted but 800 inhabitants, had 4196 in 1886. This looks funny to American eyes. Let him see Chicago, and die.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

ANTIPYRINE HYPODERMICALLY.

EDITORS MEDICAL TIMES:

On Saturday last, at 4 P. M., I was sent for in a great hurry to see the lady I have written to you about (see page 414, preceding number). I found her in awful suffering, so that she could scarcely breathe. I gave her a hypodermic of morphine sulph., $\frac{1}{4}$ gr., atropia, $\frac{1}{160}$ gr., and $7\frac{1}{2}$ grains of antipyrine. After the pain had subsided, I gave 30 grains of antipyrine by the mouth; and, strange to say, she has had no return of the pain up to this writing. She says she has not the slightest particle of pain, and don't see the use of taking medicine. The antipyrine caused some inflammation, as she has a very sore arm. The spot where the needle entered is very hard and purple.

We are now waiting anxiously to see the result of this cold rain; also to see what effect her going out will have. It is a most remarkable case, as I had often previously used morphine hypodermically, and four grains of antipyrine at times. Surely it was the antipyrine hypodermically that did the work.

J. B. S.

Editor MEDICAL TIMES:

Through no fault of the printer, an error occurs in a reference in the footnote at the bottom of page 393 in the last number of the *Times*. Instead of "December, 1884," read Feb. 7 and Dec. 26, 1885. Yours very truly,

G. BETTON MASSEY.

Philadelphia, April 8, 1888.

MISCELLANY.

RESOLUTIONS ADOPTED BY THE MEDICAL STAFF OF THE PHILADELPHIA HOSPITAL.—Dr. M. B. Musser died of Bright's disease at his home in West Philadelphia, on the 2nd of March, in the forty-fifth year of his age.

The death of Dr. M. B. Musser having been announced at a recent meeting of this Board, the committee appointed to prepare a suitable notice, beg leave to present the following minute:

Minute.—The Medical Staff of the Philadelphia Hospital have heard with sincere regret of the death of their late colleague, Dr. Milton B. Musser, one of the senior members of the Obstetrical Staff.

Coming from a family of physicians, equipped with a complete medical education and an early training as a hospital resident, with attractive manners and pleasing address, he was thoroughly prepared and peculiarly fitted to undertake the duties of his profession.

With large experience and ripe judgment, enthusiastic in his work, honest in all his professional relations, sympathetic, kind and gentle, he was a model physician; and this Institution that he has so faithfully served, and the staff of which he was so earnest and trusted a member, have lost an honored, tried and conscientious officer.

The staff desire hereby to place on record their high appreciation of Dr. Musser's many excellent qualities and the deep sense of loss which they in common with the community in which he lived have sustained by his death.

S. G. STRYKER,
CHAS. K. MILLS,
J. WILLIAM WHITE.

Committee.

Unanimously adopted, March 10th, 1888.

EDWARD T. BRUEN,
Secretary Medical Board.

In the *Medical and Surgical Reporter*, Dodge reports two cases of hysterolepsy, successfully treated with the double chloride of gold and sodium. The dose was one-twentieth of a grain, thrice daily.

EXTEMPORANEOUS INDEX-RERUM. — "A plan which is of value, requires little time and is withal inexpensive, is

to procure a large envelope with numerous indexed pockets. This can be procured of any wholesale stationer. Once a month let a few minutes be given to clipping from the journals such articles as may be of value and placing them in a pocket under the letter suggested by the subject."—*Weekly Red. Review.*

[A better plan, perhaps, is to subscribe to the *TIMES* and the *Review*, and preserve every copy religiously. There is not much of value which escapes the editorial eye.]

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 31, 1888, TO APRIL 7, 1888.

By direction of the Secretary of War, First Lieutenant William L. Kneedler, Medical Corps U. S. Army, will report in person to the Superintendent of the U. S. Military Academy, New York, for duty at that station.

By command of Lieut. R. C. Sheridan.

R. C. DUNN,
Adjutant-General.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING APRIL 14, 1888.

P. A. SURGEON HENRY T. PERCY.—From Naval Academy, and to Hospital, Washington, D.C.

P. A. SURGEON M. A. CRAWFORD.—From Hospital, Washington D.C., and wait orders.

SURGEON J. M. FLINT.—From Fish Commission duty, and to special duty at Smithsonian Institution.

SURGEON R. C. PERSONS.—To duty in charge of Army and Navy Hospital, Hot Springs, Ark.

ASST.-SURGEON E. P. STONE.—From further treatment, and to duty at Hospital, New York.

MED. DIRECTOR DAVID KINLEBERGER.—From Hospital, Washington, D.C., and wait orders.

MED. INSPECTOR A. A. HÖEHLING.—To Naval Hospital, Washington, D.C.

P. A. SURGEON G. E. H. HARMON.—To duty at Naval Academy, Annapolis, Md.

FOR THE WEEK ENDING APRIL 21, 1888.

MED. INSPECTOR A. C. RHOADES.—Detached from special duty, New York, and waiting orders

P. A. SURGEON L. G. HENNEBERGER.—Detached from Naval Hospital, New York, and to special duty attending officers and families, New York.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE FOUR WEEKS ENDED APRIL 7, 1888.

ARMSTRONG, S. T., PASSED ASST.-SURGEON.—Granted leave of absence for fourteen days, March 21, 1888.

BRATTON, W. D., PASSED ASST.-SURGEON.—Promoted and appointed Passed Assistant-Surgeon, from April 6, 1888. April 2, 1888.

PHILADELPHIA MEDICAL TIMES.

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No. 533.

MAY 15, 1888.

VOL. XVIII

CLINICAL LECTURE.

NECROSIS OF THE OS CALCEI.

BY JOHN H. PACKARD, M. D.

Delivered at the Pennsylvania Hospital.

GENTLEMEN: The patient I bring before you is a little girl nine years of age. Some two months ago, she was unfortunate enough to run a nail into her foot and this wound, instead of healing promptly, as one would expect from a slight puncture, has remained open, forming a sinus. In addition to the sinus which you here see in the sole of the foot, there is another just below the external malleolus, which communicates with the first.

The fact that suppuration has continued in this wound for two months, leads us to suspect dead or diseased bone as the cause. Were this not so, the wound should have healed long ago. The two sinuses show that the trouble is not superficial; and with the expectation of finding dead or diseased bone I have brought the patient before you, intending to lay open the wound and remove from the interior whatever may be necessary.

But, first, in order to make the operation bloodless, we apply the Esmarch bandage. This we do not only to save the patient as much blood as

possible, but also for our own convenience, in order that the parts may not be obscured by the blood.

The patient is now under the ether, and with the director I explore the wound. Finding it necessary to introduce my finger, I enlarge the wound slightly.

The director and my finger tell me that without doubt there is here dead bone. To get at this I now make below the ankle a right-angled incision, each arm of which is about an inch and a half in length, and then dissect up the flap. With gouge and forceps you see I am now removing considerable bone from the tarsus. I have taken away nearly all the os calcis but the posterior part, and parts of the adjoining bones; so that there is now no bone between the two sinuses; the director passes easily through. You notice that instead of simply boring out the diseased part of the os calcis, on its inferior surface, I have almost entirely removed that part of the bone.

I do this in order to avoid leaving a pocket-like cavity in the bone; the most difficult of all wounds to heal. So in every case I much prefer to take away the surrounding bone also, and thus have a broad surface. A drainage-tube is now passed through from one sinus to the other, and as the cause of

the suppuration is now removed we may count on a rapid recovery. The wound will, it is hoped, heal from within outward.

■ You notice that there is a marked secondary congestion in the foot and leg, just now so bloodless. This is due to the fact that the tourniquet has paralyzed the vaso-motor nerves, and they consequently allow the capillaries to become engorged. Frequently this is the cause of severe recurrent or "parenchymatous" hemorrhage in major operations; but the wound is here not large enough to give trouble.

Parenchymatous bleeding, due to vaso-motor paralysis, is sometimes so troublesome, and even dangerous, that it has brought the Esmarch bandage into disrepute among some surgeons.

THE PRESTON RETREAT.—This institution was founded by Jonas Preston, M. D., as a Lying-in Hospital for Indigent Married Women of good character. A visiting committee of respectable females is appointed annually by the managers. The powers of this committee are simply advisory; the managers having full control of the working of the institution.

■ The managers are specially empowered to receive funds for the relief of indigent lying-in married women or widows at their own houses, and for the support of children under seven years, while their mothers are inmates of the Retreat.

No unmarried physician or student of medicine can be admitted to the Retreat without the Managers' consent. The resident physician at present is Dr. Joseph Price, one of the rising gynecologists of Philadelphia. With the wealth of material at his disposal and the ability to utilize it, Dr. Price bids fair to make the Preston Retreat even more widely known in medical circles than it was under his predecessor, Dr. Goodell. It is a pity that the regulations of this institution prevent its being used for the instruction of nurses and students. Even if only female students were admitted, the Woman's Medical College would be benefitted by its clinical material.

ORIGINAL COMMUNICATIONS.

THE MANAGEMENT OF ECZEMA IN OLD PEOPLE.

BY ARTHUR VAN HARLINGEN, M.D.,

Professor of Dermatology in the Philadelphia Polyclinic.

(The substance of a lecture delivered at the Philadelphia Polyclinic, April 10, 1888.)

McCALL ANDERSON has well said that there are few persons who pass through life without having at one time or another suffered from eczema.

What the form may be depends very much upon the period at which it occurs. In the infant the acute erythematous, vesicular and pustular varieties are those met with, of which the well-known tooth-rash is a typical example. When we come to adult age we find the vesicular form of eczema in some cases, but rarely the pustular, and we here meet with papular eczema much more frequently. Toward middle age neuritic and gouty eczemas, the forms known as eczema rubrum and eczema fissum with ulcers on the lower limbs and chronic palmar and plantar lesions are those most apt to be encountered.

When we come to old age, by which I mean generally speaking, the period between sixty years and the end of life, we find eczema assuming a character, and invading localities, which are sufficiently characteristic to allow of separate consideration.

In the remarks I am about to make upon eczema in old people, I intend to confine myself strictly to my own experience, nor do I think that we can find much to enlighten us on this subject in the text-books or the monographs upon this subject, as it is only touched upon incidentally.

In looking over my private case books I find that I have records of between thirty and forty cases of eczema occurring in persons from sixty to ninety-four years of age. Of these, all but two were either eczema erythematosum or eczema rubrum, or both combined. These varieties of eczema then may be regarded as essentially characteristic of old age. They are in reality but two stages in the same process, and very often run into one another.

Any portion or all portions of the body may be attacked, although the eruption is commonly confined to some particular part, as the face, the scrotum, or the upper or lower limbs.

We not unfrequently encounter eczema erythematosum of the face in old people. Here we have a portion or more frequently the whole face, neck, and sometimes chest, covered as if with a mask by a dusky, red, thickened, infiltrated, scaly skin, weeping and cracking in its folds, and giving rise to a pitiable amount of suffering in the form of burning, or itching, or both.

Next to the face, in fact among my cases as frequently as the face, are the scrotum and adjacent parts the seat of the disease. Here the disease almost always runs on to eczema rubrum and we have the scrotum and penis swollen, cedematous, with the skin more or less thickened and infiltrated, dusky red, shining glassy, or varnished and usually weeping abundantly, with numerous cracks and fissures. The adjacent parts of the thighs is likewise commonly involved, and the disease may run up into the groins and over the abdomen, the appearance here presented being that of erythematous eczema with a dry, hard, scaly surface, save in the fold of the groin, which is apt to be marked by a deep, red, weeping crack or fissure.

The legs are a not unfrequent seat of eczema in old people, the disease usually beginning as erythematous eczema and quickly changing to eczema rubrum, with often a very profuse discharge and not unfrequently ulcers. Varicose veins are commonly though not always present.

As regards the etiology of eczema in old people, it must be remembered in the first place, that eczema is a disease of debility. In most cases of eczema that are at all severe, debility, a falling off from the natural vigor of the body, is observed. And the debility of old age is of that nature which particularly predisposes to affections of the skin, whether inflammatory or structural. The changes which the skin undergoes in old age, the atrophy of its upper layers and the partial suppression of its normal secretions, modify the character of many diseases, and eczema in particular. This is apt to take on a

sluggish and indolent course and often proves utterly rebellious to all treatment.

Malassimilation is another cause of eczema in old persons. This is manifested by dyspeptic and gouty symptoms, obstinate constipation and loaded urine. Among the younger portion of my old patients, those not much past sixty, I find many self-indulgent persons, accustomed to the pleasures of the table and loath to give up such dishes as they have enjoyed in early life but are not now able to digest. In these cases the eczema is apt to be very stubborn, as it is difficult for the patient to go upon a restricted regimen. Repeated relapses are found to occur from indiscretions in diet.

In a certain number of eczematous old persons you will find cardiac valvular disease. The existence of this is, I think, at times an efficient cause in the production of eczema, particularly of the lower extremities, and it certainly affects the prognosis unfavorably.

In eczema of the lower extremities, venous stasis, in the form of and accompanying varicose veins, is a very common cause of eczema in old persons; and this variety of eczema is closely allied to that described above, in the fact that it is apt to be of unfavorable augury. Tilbury Fox first called attention to the circumstance which I have several times found occasion to verify, that eczema of the lower extremities in old persons is frequently the first sign of a general "break up" of the system.

Regard being had to these factors in the etiology of eczema in the aged, we proceed to the management of our cases by first instituting a careful examination into the patient's constitution, habits and surroundings. Diet, clothing, atmosphere, occupation, mental worry or physical exhaustion, every internal or external cause of impaired health should be examined into, and whatever is faulty should be corrected. I need hardly say that the condition of the digestive, circulatory and respiratory apparatus, should be carefully inquired into; the urine in particular being always examined, and I think that few cases will be found where there is not some screw loose, some defective working of the mechanism.

After placing the patient under the best hygienic conditions attainable, the diet should be regulated with regard to the enfeebled digestion of old age, the loss of teeth, the want of exercise, etc. Among the younger of our old patients, errors and indiscretions in diet, usually from self-indulgence and the morbid cravings of a depraved digestion, are often encountered. Among the very old what is often needed is advice, not unlike that which we have to give to nurses and young mothers. As the patient approaches the condition of second childhood, the diet of infancy in some respects at least seems that which is most likely to be assimilated.

Sometimes we meet with sad cases where the old man or woman is obliged to toil on far past the period when nature demands repose for the worn-out frame. In other cases the worry of pecuniary embarrassment or family differences acts like a weight cast on shoulders too weak to bear the load. Unquestionably these unfavorable outward circumstances favor the continuance of eczema in the aged, even if they are not at times its immediate cause. Removal to a hospital or a home away from the unfavorable influences is often followed by immediate improvement in the eczema.

Indigestion, when it exists, is to be combatted by means appropriate to the individual case. I repeat what I said before, that in the younger of our patients, regimen is required and in addition the medicines appropriate to rectify what is amiss, while in the older patients a diet suitable to the enfeebled digestion of old age, easily or partly digested foods, pepsin, etc., are called for.

Constipation is extremely common in the eczema of old people, especially in connection with eczema of the genitals. To remedy this we must rely more upon drugs than diet. In some cases, particularly the younger ones, purgative mineral waters, especially the Hunyadi Jaños, in doses of a wineglassful daily before breakfast, diluted with eight or ten ounces of hot water, may be employed. In older cases the "Lady Webster dinner pill" ("Pil. aloes et mastich") forms the best aperient.

Tonics are at times demanded.

Strychnine and quinine are useful. Arsenic should be entirely eschewed. Iron sometimes appears to do much good, especially in the form of the tincture of the chloride or in combination with a mineral acid as in the well-known *mistura ferri acida*. When diuretics seem to be required, the well-known Basham's mixture may be employed with advantage, to which acetate of potassium may sometimes be added.

Alcoholic stimulants are occasionally required in the treatment of eczema in the aged, but must be employed with great caution, and at times certainly do harm. When there is a tendency to heart failure, alcohol must certainly be employed. Digitalis, however, will usually accomplish more in these cases when anything can be done.

The local treatment of eczema in the old is of course of great importance. Soothing remedies, as baths of starch and bicarbonate of sodium; lotions, as lead-water, black wash, may be employed with advantage. The fluid extract of *grindelia robusta* may be used when the eruption is inflammatory and acute. It should be employed in a diluted form, half an ounce to an ounce being mixed with a pint of water. In applying this wash, cloths soaked with it should be applied to the affected part and allowed to dry in contact with the skin, being then changed for a fresh wet application. On no account should evaporation be hindered since this would convert the evaporating dressing into a poultice, thus forming maceration and discharge, which is chiefly to be avoided.

In many cases bland astringents or soothing powders may be employed to advantage. Rye flour sometimes succeeds when other applications irritate. The simple dry starch flour, lycopodium, kaolin or subnitrate of bismuth may be mentioned as likely to agree in acute cases. None of these, as a general thing, should be used when there is much discharge. The flour and starch powders in particular are apt to cake and form a crust under which fermentation with the formation of acid discharge is apt to occur very speedily, adding much to the patient's discomfort, and often aggravating the disease.

The following powder is one which I often use as an anti-pruritic with considerable benefit:

- R
- Pulv. camphoræ.....

Pulv. zinci oxidi.....

Pulv. amyli.....
- 3j

3j

āā ʒss M

It should be thickly powdered on, or where practicable, strewn thickly on lint and bound to the parts.

Ointments are most generally useful in eczema of old persons, both soothing ointments and stimulating and anti-pruritic ointments. Among the soothing ointments McCall Anderson's bismuth ointment stands first. It is composed as follows:

- R
- Pulv. bismuthi oxidi.....

Acidi oleici.....

Ceræ albæ.....

Vaselini.....

Olei rosæ.....
- 3j

3j

3iij

3j-3j

ʒiij M

Hebra's unguentum diachyli is also useful when well made. Dilute oxide of zinc ointment, ointment of the sub-nitrate of bismuth, a drachm to the ounce, and of tannic acid in the same strength prove useful at times.

When somewhat more stimulating ointments are called for, carbolic acid in the strength of ten to thirty grains to the ounce will be found both stimulant and anti-pruritic. Pruritus is at times a most distressing symptom in the eczema of old persons, and tar or carbolic acid will usually be found the most efficient remedy. An ointment of tar, one drachm to the ounce, may be used alone or in connection with a mercurial, as this:

- R
- Picis liquidæ.....

Ung. hydrarg. nitrat.....

Adipis.....
- 3j

3ij to 3iv

ad ʒj M

Sometimes when the eruption tends to papulation, or when there is much thickening, we may have to use stronger applications, as Wilkinson's ointment:

- R
- Olei cadini.....

Flor. sulphuris.....

Saponis viridis.....

Adipis.....

Pulv. cretæ.....

M.
- āā 3iij

āā 3vj

gr. xxvi

With one of these local applications or all in succession if required, you will usually be able to give relief to your elderly eczematous patient and occasionally to cure him.

SEWERAGE AND DRAINAGE,
WITH BRIEF REFERENCE TO
DISPOSAL OF THE SEWAGE
OF PHILADELPHIA.

BY J. M. ANDERS, M.D.

THE disposal of sewage is a question of prime importance to the inhabitants of cities. "Filth and disease go hand in hand, the former leading the latter." Practical illustrations of the injurious effects of filth are found in certain countries of Southern Europe, notably Italy, where the cholera and other deadly diseases largely prevail. Conversely, cleanliness forms the most potent of precautionary measures against a large class of epidemic diseases; and cleanliness implies purity in the air we breathe.

On examining the question historically, we find that the processes employed to remove sewage have been and still are manifold, though at present writing we shall consider only the most approved systems in general, and the method used in Philadelphia somewhat in detail. Sewage matter is made up of such various substances as surface water due to rain-fall, kitchen-waste, dust, the discharge from sinks, basins, baths, the waste-water of industrial processes and excreta, including the urine and fæces.

In the days of the old-fashioned privy with its vault, the surface water and all slop-water were allowed to soak into the surrounding soil, or to find their way through superficial channels into the nearest streams, or into the sea. By a considerable proportion of the American populace this objectionable device is still used; and a recent writer¹ attributes the practice to the popular belief in the supposed powers of the soil, or of the roots of plants which may be present, for purification and disinfection. The limited action of the soil upon the refuse products which befoul it, is well expressed by Prof. Max von Pettenkofer². "If this refuse matter," he tells us, "remains in soil destitute of growing vegetation, further decomposition sets in,

¹ "House-waste," by E. H. Philbrick, M.A., S.C.E., Parkes' Hygiene, Vol. II., p. 475.
² "Hygienic Influences of Plants," Popular Science Monthly, Dec. 1878.

and other processes are induced, not always of a salubrious nature, but often deleterious, the products of which reach us by means of air or water, and may penetrate into our houses. Owing to the strong absorbing powers of plant roots, they exercise upon the soil a purifying influence of no slight importance. Living vegetation sucks up many of the waste products, which must be regarded as hurtful, and would otherwise be returned in the form of vapor to the superjacent atmosphere. There is no positive proof, however, that disease-producing germs are thus actually removed from the superficial strata."

Whilst the privy is here mentioned, to be condemned, the more modern water-closet with its cess-pool is to be placed in the same category. According to Vaughn,¹ the ordinary privy vault, with its porous walls, has caused more deaths in this country than war and famine have produced. The chief danger arising from the cess-pool is infection of the drinking-water with the germs of contagious diseases. Indeed, privy-vaults and cess-pools are the origin of most instances of typhoid fever. In certain European cities, cess-pits are prohibited² altogether, and unquestionably their use should, for sanitary reasons, everywhere be forbidden by legislative enactment. In Philadelphia, happily, no privy-vault or cess-pool shall hereafter be constructed where sewers are at all accessible.³

As a mode of removing the excreta, the dry-earth closet may be recommended under certain conditions, per example: in towns and villages where the water supply is insufficient; in those sections of larger cities where sewers are impracticable, as well as in separate buildings. From a sanitary point of view the dry-earth closet is more desirable than any other known system, though demanding close attention. It presents two advantages of prime importance, namely: no harmful gases are produced, and no contamination of the drinking-water supply occurs. While there are many patterns of the dry-earth

closet, the simplest of these is the best. Prof. Vaughn¹ recommends placing under the seat boxes or drawers lined with galvanized iron. The best earth to use is pulverized clay mixed with one-third its weight of loam, and of this compound a small shovel, about two pounds, is thrown in after each evacuation. Where greater convenience is sought, any one of the forms of the patent earth-closet, which are so arranged that the requisite amount of earth falls into the box in a manner similar to that by which the water-closet is flushed with water, may be used. This method is now largely used by the inhabitants of small towns and cities, and in isolated institutions throughout the Western States, with good results. These dry-earth closets, properly attended, require to be thoroughly emptied at least once a week, and the excreta removed. In Glasgow, the excreta from one part of the town, containing eighty thousand people, are now removed every day without admixture, except with the garbage from the houses, and are sent long distances.² In the city of Manchester, the dry method in the form of an ash-pit and a privy, is used extensively; and the same thing is true of the central portion of the city of Edinburgh.³ Doubtless this method affords the best opportunity for utilizing human excrement for purposes of soil-fertilization, at a profit.

It is to be noted here, that sewage without admixture is quite prone to undergo decomposition; hence, it cannot be allowed to remain, even for a short period in the vicinity of human habitations, without endangering the lives of the inmates. Speedy removal of this compound, more particularly of the excrementitious elements which not unfrequently contain the specific germs of disease, is therefore to be secured. Now, the best device for carrying away sewage is the well-known "water-carriage system," by which method the sewage, to which has first been added a considerable volume of water, is transported by gravitation. Of this "water-carriage system" there are two well-known forms, viz.: the "combined" system with a

¹ *Loc. cit.*, p. 16.

² "Parkes' Hygiene," Vol. II, p. 46.

³ *Journal of Amer. Med. Association*, March, 1888.

¹ Lomb Prize Essay, p. 17, 1886.

² C. Hering, *Med. Times*, Feb. 25, 1882.

³ Act of Assembly, June 30, 1885.

single set of sewers, having sufficient capacity to convey both the storm water and foul sewerage; and the "separate" mode, which has a distinct net-work of pipes to carry off the rain-fall. This latter system presents three varieties, which need not here be described, however.

The advantages and certain disadvantages of the "combined" system are admirably given by C. Hering,¹ in his report on sewage works in Europe, forming Supplement No. 16, of National Board of Health Publication. Among the sanitary advantages he enumerates the cleansing effect of more or less frequent flushing by storm-water, and the much better opportunity afforded for cleansing and inspection. The advocates of the "separate" method, he tells us, have raised the objection that the unequal rapidity of the flow during storms and fair weather, leads to deposits which choke up the conduits, although this disadvantage can, he maintains, "be overcome by building the sewer of an egg-shape in section, and of such a size that the invert radius is about as small as the semi-diameter of a tube which would be half-filled by the average current of sewage without any rain-water."

A chief advantage of the "separate" method lies in the fact that the sewers intended for transporting the human excreta, have smooth inner surfaces and need only be large enough to convey the regular flow of sewage; and on this account, are self-cleaning. The small sewer-pipes are also connected with flushing tanks, by means of which they are periodically flushed. The large sewers of the "combined" method are found to present rough surfaces, and they are flushed only at the time of heavy rain-falls. The deposits on their inner aspect decompose, forming noxious gases, which escape through ventilators into the street or through defective traps into dwelling-houses. The "separate" system is usually regarded as the proper one for small towns, partly because under these circumstances, less costly than the "combined;" and partly because it is somewhat complicated in its application to larger cities, owing to the fact that two sets of sewers are

required. It has been introduced successfully at Memphis, Tenn., and Newport, R. I.; while New Orleans has also adopted it.² Against the "separate" system, the argument has been adduced, that the flushing of the waste soil-pipes is subject to natural phenomena or the irregular action of rain-fall, and not to the control of appliances, as are smaller systems of pipes conveying the sewerage proper. Whilst kitchen waste and the products of surface drainage in general are injurious, and should be properly disposed of, by far the most dangerous element of sewage is human excrement, more especially after decomposition sets in, which usually happens in the course of twenty-four hours; and also for the reason before pointed out, that it contains rather frequently the germs of certain diseases. The micro-organisms of typhoid fever, as shown by a large mass of evidence, are propagated in and communicated through the medium of the fæces—a fact which explains why cess-pools and privies are so frequently responsible for cases of this affection. It follows that, by removing promptly this matter to a point beyond the power of harm, typhoid fever would be practically unknown; and hence the universal adoption of the "separate" system by means of which the same object can be attained, would go far toward stamping out this now prevalent affection. Further than this, where the superficial area to be drained is very extensive, two sets of sewers should be employed, not only because the sewage could in this manner be more effectually and promptly disposed of, but also because, if the combined plan be used under these circumstances, the inflow of the storm-water compresses the air in the sewers, thus driving the sewer-gas through the traps into the dwellings, with consequences decidedly serious. The *N. Y. Medical Journal* has recently pointed out the fact that, since Letheby's report on the subject in 1858, it has been known that the air of sewers is not of itself usually deleterious; that scavengers and men who work in sewers are generally healthy and long-lived, plumbers seldom die of zymotic disease, and that sewer-rats

² "Sanitary Drainage," Col. G. Waring, Jr., *North Amer. Review*, July, 1883.

¹ Loc. cit., p. 356.

grow gray in their subterranean quarters. In this connection the experiments of Prof. Thomas Carnelly and J. S. Halldane, M.B., are of special interest. They found the air of large sewers ventilated by means of man-holes, to be comparatively free from noxious gases, containing proportionately fewer micro-organisms than the outer air of the same locality. Thus they demonstrated to their own satisfaction that most of the micro-organisms found were not developed within the sewer, but drawn in from the outer air. But though the air of sewers is generally innocuous, the most enlightened information on this subject forces the conclusion, that old deposits on their inner aspects render the sewer air highly dangerous. The same observers have shown that deposits around holes in the pipes or open joints, as the result of decomposition and emanations from these slimy surfaces, frequently cause actual disease.

In the present inquiry, then, the paramount consideration is the attainment of thorough cleanliness, thus avoiding the occurrence of deposits, and whilst this object is easily attained where there is perfection of construction, it is manifestly impossible in the presence of holes however small; for, as pointed out by Carnelly and Halldane, such openings allow the fluid sewage to spurt through and deposit around the holes on the exterior. Obviously, therefore, it is of especial sanitary importance to secure the best possible construction of house-drainage, if we would avoid one of the principal causes giving rise to a class of fatal diseases. But surely the ways of the plumber are past all finding out. The habit universal among plumbers of concealing their work should be condemned. Especially is it important that all traps and vertical pipes should be readily accessible, in order that they may from time to time be examined.

In view of the foregoing facts, and the freshly awakened interest in the sanitary regulation of cities, the present would seem to be an opportune season for making an examination of the present condition of the drainage of Philadelphia, with a view of directing attention to some of its more obvious advantages, if any, as well as its acknowledged defects.

Philadelphia presents an example of the "combined" system, though imperfectly. Investigation has shown that in the southern and northeastern section of our city, the greatest and most numerous defects exist. In numerous instances the refuse matter from water-closet, sink, basin and bath are found to have a single trap in common. In some of the older and better class of dwellings, occupied by wealthy citizens, I am informed by a leading practical plumber, untrapped house-drains have been found. Very often costly and complicated appliances are met with, which are always objectionable for the reasons that they neither answer well the purpose for which they are intended, nor can they be kept in proper order. In numerous instances the house-drainage discharges into cess-pools or privy-wells, which are located either in the back yard or cellar. Again, quite frequently the sink and slop-water flows over the surface of the paved passageway between two adjacent houses, or is allowed to flow across the side-walks; in either case stagnating in the street gutters. Mr. Baldwin (quoted by Col. G. Waring, "The Drainage Question in Phila.," *Phila. MEDICAL TIMES*, June 27, 1885,) has most faithfully depicted some of the leading faults met with in our house-drains. "A privy vault in the back yard serves to accommodate the occupants of the house, or to receive the drainage from water-closets, if any, in the upper stories. The vault is washed out by rain-water led to it from as much of the roof as inclines toward the rear. A terra-cotta or earthen-ware pipe, from 8 to 12 inches in diameter, serves as an overflow to carry away the liquid contents of the vaults, passing under the cellar, buried about one or two feet in the ground. The waste-pipe from the sinks on each floor connects with and discharges into the main drain-pipe, beneath the cellar. A hydrant in the back yard affords a supply of water for all purposes, principally for the laundry. * * * Beneath the hydrant is a slop-stone, with an iron grating through which the waste from the hydrant, the drainage from the yard, and the water from the wash-tubs, pass underground to the same

house-drain beneath the cellar. This is the common practice of drainage, where houses present a solid front on the street and have no means of drainage to the rear. It may be seen in much of the older part of the city, and in fact all along the Delaware front below Fourth St., and elsewhere." During seasons of heavy rain-falls, a few of our main sewers, which are not less than ten feet in diameter, have repeatedly burst, thus proving themselves inadequate to convey the storm-water, at all times; and although all the main sewers now put down are egg-shaped, possessing the advantage of being to a great extent self-cleansing, still the vast majority are of the old circular variety, with their inner surfaces more or less roughened by deposit, and are on this account objectionable also upon sanitary grounds. The old sewers are also very imperfectly constructed, being "built of a single four-inch ring of brick, the lower half of which is generally laid without mortar," allowing liquid parts of the sewage to pass into the soil, until it becomes saturated. Our sewers are not sufficiently ventilated, while the so-called inlet basins serve as repositories for filth which is only occasionally removed. The above defects together with inferior workmanship constitute influences which combine to give us a system of drainage having many imperfections, some of which are of a decidedly serious character. Within the past two years, forces have been gathering however, with the aim of securing better sanitary regulations in Philadelphia. In 1885 an act authorizing and directing the boards of health in cities of the first class to promulgate rules and regulations for the construction of house-drains and cess-pools; to provide for the registration of master-plumbers, as well as to establish a system of inspection over all work, was passed by the legislature of Pennsylvania. Under the powers vested in the Board of Health of Philadelphia, by the said act, a series of not less than forty-one (41) rules has been issued by that body; and whilst to adduce all these is deemed unnecessary here, it should be remarked that their rigid enforcement would to a large extent

correct the imperfections and omissions before pointed out, so far as appertains to the subject of house-drainage. There are a few suggestions not given in the rules referred to that seem to be of such leading importance as to demand brief mention.

Under rule 28, it is stated, "The trap" referring to water-closets, etc., "must be placed as near the fixture as possible." Now, as already intimated, water-closet traps should not be hidden from view, "in order that they may at all times be conveniently inspected." In rule 39, the following occurs: "No privy-vault or cess-pool for sewage shall hereafter be constructed in any part of the city where a sewer is at all accessible"—a good rule so far as it goes, but why not abandon the abominable cess-pool altogether, introducing the dry-earth closet where connection with sewers is impossible, since the latter form of closet can now be made sufficiently convenient for general use. But whilst the sanitary regulations announced and carried forward by the Board of Health are measures well adapted to improve greatly the house-drainage, and this is to be regarded as an important first step in bringing about much needed reform, they do not materially change the general system of sewerage—a question to which Philadelphia should even now be looking.

The superficial area of Philadelphia is greater than that of any other city of America, it being not less than 82,603 acres, or about 129 square miles. The surface of the main portion of the city, or that lying between the Delaware and Schuylkill rivers, is almost level; and yet this part lies from 20 to 40 feet above tide water. Some of the northern and western sections are somewhat rolling, reaching an elevation of about 440 feet above the sea-level. "The rise and fall of the tide in the rivers is over six (6) feet¹;" and although Philadelphia extends over a large area, it is to be noted that it is rapidly integrating; so that any system of sewerage adopted at the present day, should be selected with a view to meeting the demands of future growth and extension. There are in Philadelphia quite a number of main sewers, each

¹ Waring, loc. cit.

draining a distinct, though variable in superficial area, and the majority of these discharge their contents into the Delaware river, and at least three into the Schuylkill. Moreover they empty into these waters at points directly adjacent to densely populated portions of the city, with perhaps one or two exceptions. And although since the completion of the large trunk sewer, which it is hoped will convey all the sewage from Manayunk and its environs to a point below the chief source of Philadelphia's water-supply, still upon sanitary grounds, the mere contamination of contiguous waters, by the vast amount of foul sewage which this city constantly produces, is objectionable; for whilst the albuminous matters present may be rapidly rendered innocuous by oxidation, there are no facts to show that the germs of disease are destroyed in like manner.

With a view to counteracting a similar evil, London has already spent thirty millions of dollars for intercepting sewers and pumping stations, but with unsatisfactory results. In short, experience has taught us that the immense sums of money expended in the construction of these large trunk sewers bring only a poor return. The question, how to keep the foul out-flow out of adjacent waters, remains to be solved by Philadelphia and other cities. The common system of sewerage employed in Philadelphia, it is contended by some high authorities, is the best under existing conditions. In reference to this view, it is to be said that if all sewers were egg-shaped it might be accepted; but, as before pointed out, nearly all are round and hence objectionable. Where all drainage is united, as in Philadelphia, to replace all the old brick sewers with egg-shaped ones would require untold labor and expense. Under all the circumstances, the "separate" system would be feasible, and for many good reasons preferable. The old sewers should be utilized to carry away all sewage other than excrementitious matter. Were this plan adopted, we should still be obliged to recognize the great advantages of the egg-shaped sewer for conveying the surface drainage. Without stopping to discuss this proposition further, it

seems desirable to re-state the chief claims of this admirable system, more particularly with reference to the needs and present condition of Philadelphia sewerage.

First.—It separates the more dangerous elements of sewage from the larger portion of refuse products and storm-water—a point of the first importance in the minds of the leading sanitarians.

Secondly.—It accomplishes the speedy and effective removal of the more hurtful portion of sewage before putrefactive decomposition can take place, and consequent contamination of the house atmosphere.

Thirdly.—The removal of the sewage constituents other than human excrement, though harmful if allowed to decompose, can yet be more safely left to the old sewers, which would continue to be flushed by the same natural agencies as those of the present time.

Fourthly.—The fact that the superficial area is already extensive and constantly increasing, while some of the sewers are even now inadequate, furnishes additional basis in favor of the adoption of the system here advocated.

Fifthly.—By utilizing the old sewers, the "separate" system could be introduced for a moderate outlay, while the benefit derived by the community would be an ample return.

ARM PRESENTATION—AN UNUSUAL CASE.

BY F. O. DONOHUE, M. D.,

Syracuse, N. Y.,

Physician to St. Joseph's Hospital.

THE tendency of complicated labors is to be very complicated, as the following case which came recently under my observation will illustrate. I have been constrained to present the details, because in a somewhat extended obstetrical experience I have met few cases which were to me of more interest, not less on account of its complicated nature than of the extraordinary vitality exhibited by the patient under prolonged adverse conditions.

On the 24th day of August, about eleven o'clock in the forenoon, Dr. —, a most excellent physician of this city, summoned me by telephone to assist him in a case of labor over which he

was then officiating. Upon repairing to the house, which was about one and one-half miles distant, I found the following conditions: A stout healthy looking lady about forty years of age in the throes of her first labor. An examination revealed the left arm of the child presenting palm upwards. The head was in the left iliac fossa face upward. The liquor amnii had entirely drained off; pains were frequent and powerful. The left shoulder was firmly impacted in the pelvic strait. After a hurried consultation we agreed that turning should be resorted to immediately, although I confess that the outlook to me for the operation of version was anything but encouraging. However, we placed our patient under the influence of ether and endeavored to perform version, but so firmly had the uterus contracted about the child, which was also firmly impacted and crammed into the pelvic strait, that all our efforts proved futile. The question now resolved itself into embryotomy, to which there was no alternative as the child was now dead from the enormous pressure to which it had been so long subjected. We would gladly have shrunk from the operation, for we foresaw that in the delicate manipulations required in the mutilation of the child in utero, we would be called upon to perform the most formidable operation known to obstetric surgery, and we looked forward with no little degree of solicitude for our patient.

Entrusting the administration of the anæsthetic to my colleague, I proceeded to amputate the presenting arm at the shoulder-joint by a series of snipping movements with the point of a bone forceps. This done the other arm after much difficulty was brought down and subjected to the same process. The advantage thus gained was the clearing of the pelvic strait of the obstructing members.

The next procedure was the penetration of the thoracic and abdominal cavities and evisceration of the child, then a transverse section of the spinal column in the dorsal region; the lower part of the child was delivered. The head was subsequently brought down and the delivery completed, the operation lasting from 11.30 A.M. to 3 P.M.

Our patient made a rapid and satisfactory recovery, her convalescence taking place without any untoward event.

I fancy some will remark that version should have been performed earlier, to which I shall agree, provided the physician be called in time.

My friend, Dr. —, informed me that the condition which I found was substantially the same as when he first saw her, she having been in labor since 5 o'clock A.M. Certain it is that her condition was such when I saw her as to preclude all possibility of turning, and embryotomy was resorted to as the safest means of accomplishing the delivery.

Those who have been called upon to perform this operation will agree with me in saying that all other obstetric procedures are easy in comparison. The operator must be guided solely by the sense of touch, guarding sedulously the maternal structures from mutilation, with little latitude of motion allowed by the narrow confines of the parturient canal. Fortunately we are rarely called upon to perform this operation, as statistics show that arm presentations occur only about once in 300 labors, and a very large proportion of these can be converted into podalic presentations, by timely interference of the accoucher.

PUSTULAR ECZEMA.—For a case of chronic pustular eczema in a child of about two and a half years; Shoemaker prescribed:

R. Extracti hordei fluidi..... $\overline{3}$ ij
Syrupi phosphat.com..... $\overline{3}$ j
M. Sig.—Half-teaspoonful ter die.

And an ointment of—

R. Creasoti.....gtt ij
Hydrargyri chloridi mitis...gr v
Naphthalin.....gr v
Plumbi carbonatis impur..... $\overline{5}$ j
Ung. zinci oxidi..... $\overline{3}$ j
M. Sig.—Apply locally.

As in most of these cases of crusta lactea, there is digestive trouble, Shoemaker prescribes an almost exclusive milk diet. This was ordered in the present instance.

HOSPITAL NOTES.

QUINSY.—Pancoast showed a case of acute tonsillitis, for which he applied the antiphlogistic knife to the affected organs, and directed the patient to steam them well. Take an ounce of tinct. of myrrh, a pint each of water and of vinegar, boiling hot; throw a towel around the patient's head, and let him inhale the steam until he is in a profuse perspiration. This is very soothing to the inflamed mucous membrane.

NASAL CATARRH.—Pancoast advises the following as very useful in acute or chronic catarrh:

Borax $\frac{3}{4}$ ss
Tincture of myrrh..... $\frac{3}{4}$ ss
Honey..... $\frac{3}{4}$ ij
Infusion of cinchona, q. s. ad $\frac{3}{4}$ iv.

M. S.—A little to be poured in a cup of cool water and snuffed up the nose occasionally.

FOR ANEMIA WITH CONSTIPATION:

R Elix. cinchonæ.....
Sp. aromatici.....āā part aq.
M. S.— $\frac{3}{4}$ j to $\frac{3}{4}$ ss several times daily.

R Ext. ignatiæ amaræ.....gr. $\frac{2}{3}$
Quininae sulphat.....gr. ij
Capsici pulv.....gr. $\frac{1}{2}$

M. ft. pil. S.—Thrice daily.

A little carbolic acid may be added if the stools be fetid.—PANCOAST.

UNIVERSITY HOSPITAL.—Pepper reports the expulsion of *tænia solium* with head. The following was the procedure: The patient fasted during the day and took a saline purge in the evening; the next day $\frac{3}{4}$ ij of oleo-resin of male fern was given, rubbed up with sugar, at 7 A. M., 8 A. M., and 10 A. M. With the last dose a saline purge was given. He says it is useless to trifle with smaller doses of male fern.

IMPERFORATE ANUS.—In Agnew's case the rectum opened into the vagina and the lack of an anus had not been suspected for some months. A director was passed through the opening into the rectum, and made to project the dimple which marks the site of the anus. This probe was cut down upon by a dissection nearly two inches deep. The mucous membrane of the bowel was then attached to the skin by a suture of catgut in front and another behind. Prof. Agnew hoped that the opening into the vagina

would close spontaneously, but a subsequent operation might be required. The baby was shown three weeks later with the artificial anus contracting, requiring dilatation by soft rubber catheters.

ACUPUNCTURE IN LUMBAGO AND SCIATICA.—Pepper strongly recommends this little operation, which savors so strongly of empiricism. It should be done aseptically and the needles, or rather strong steel pins, rather less than half the diameter of steel knitting needles, should be thrust to the bone. His theory as to the relief often afforded is, that the inflammatory exudation confined by dense fibrous structures, and which causes the pain, is drained off by the punctures.

RHEUMATOID ARTHRITIS.—Osler recommends arsenic in the form of Fowler's solution. He begins with gtt. ij–ijj thrice daily, gradually increasing to the limit of tolerance, as shown by diarrhœa or slight ophthalmia. He has given 35 minims three times a day without bad results.

HEPATIC CHILLS.—Osler showed the liver and duodenum from a well-marked case of Charcot's hepatic intermittent fever. A gall stone about three-quarters of an inch in diameter was impacted at the mouth of the common duct. The patient had chills and a temperature of 104° F., at irregular intervals, followed by marked jaundice. Prof. Osler regards these attacks as analogous to those caused by the passage of an urethral instrument.

IRRITABLE BLADDER.—Goodell gives from 30–40 grs. of asafetida per day. He has had incontinence after dilatation of the urethra by the finger in only one case. This patient loses two or three drops only, when she laughs or sneezes, but thinks nothing of this.

ANTISEPTIC LITHOTRITY.—Agnew observes strict antisepsis during lithotripsy, using boric acid lotion to distend the bladder and keeping the instruments in antiseptic solution. After the operation he orders a flax-seed poultice to the hypogastrium, a suppository of belladonna and opium, and requests the patient to refrain from urinating as long as possible.

SCROFULOUS ABSCESSSES.—These Agnew evacuates, removes all broken down tissue with curette and scissors, ligates bleeding points, inserts a drainage-tube. After sewing up the wound he applies the usual antiseptic dressing.

MEDICO-CHIRURGICAL HOSPITAL.—After an attack of syphilitic laryngitis, the vocal cords rarely regain either their normal color or smoothness; and if the patient has a singing voice, his voice will never again be as clear, or have as high a compass as before.

Iodide of potassium will seldom relieve superficial syphilitic laryngitis, but the iodides of mercury will remove the trouble, sometimes with almost startling rapidity.—*Stern*.

CHRONIC ECZEMA.—A case of general eczema was shown, contracted during the war. From head to foot the man's skin is rough, scaly and indurated. For some time he has been treated by the mouth, but his alimentary canal is in so poor a condition that medicine by that route seems not to get into his system. This is the class of cases in which hypodermatic medication often succeeds where everything else fails. He was ordered nothing but hypodermatic injections, every other day of gr. $\frac{1}{10}$ arsenite of sodium; the dose to be gradually increased to gr. j.

MILK DIET.—In prescribing a milk diet principally, the milk should be taken between meals, when regular meals are taken; and at any rate the milk should be given in small quantities at a time, in order to be the more easily and quickly taken up by the lacteals.

Quinine is a most valuable tonic for children, and is not prescribed enough. In this case he gave:

R Ferri et quinae citratis.....3j
Syrupi aurantii corticis.....3iij M.
Sig.—Teaspoonful three times a day.

Predigested foods are also of much value in cases like this.

MAGNESIA DANGEROUS.—Stewart advises against the giving of dose upon dose of carbonate of magnesia, when it fails to purge.

It is likely to make a dangerous stone-like impaction in the intestine. He has known several cases of death from this cause.

"OBSTETRICAL APHORISMS."—*Stewart*.—In cases of post partum hemorrhage, where the patient is dangerously weak from loss of blood, do not neglect, along with other measures, to elevate the foot of the bed so that the brain may more easily receive blood.

Alum, 3j to the pint, is a cheap and good wash for excoriated nipples; so is tincture of catechu. If the excoriation is very bad, try arg. nit., gr. vj. to the ounce of rosewater. Have the nipples washed though, before the child is applied. Protect the nipples with a shield from being rubbed by the clothing; and if these measures are not sufficient, have the nipple covered by a shield while the child is sucking.

Within forty-eight hours, or the so-called "three days," you may have milk fever. The temperature may rise even as high as 103° or 104°. This fever can usually be avoided by keeping the mother on mild unstimulating diet for the first three days after childbirth.

In treating this fever, I have found that a continuation of saline purgatives will much decrease, or perhaps stop the flow of milk.

Accordingly I use other preparations—compound licorice powder, a good 3 to the dose; or, better still, castor-oil. When the milk is deficient, cocoa in some form is generally of good service to increase the flow.

PHILADELPHIA HOSPITAL.—**RESECTION OF KNEE.**—Dr. Deaver resected the right knee-joint for a case of chronic arthritis, of the kind known as the "gelatinous." The skin was incised through about two-thirds of the circumference of the joint, just at the inferior border of the patella. After the skin had been dissected well back, the various ligaments were divided, till everything was cut down to the popliteal vessels. With a so-called "butcher's" saw he removed both the condyles of the femur and the head of the tibia, sawing from below up, in order to avoid the danger of wounding the popliteal vessels by a sudden slip of the saw. He also took away the patella. The opposing ends of the two bones were much softened and ulcerated, and it required only a

few sweeps with the saw to cut them off. The articular cartilage had been entirely absorbed. The ends of the femur and the tibia were cut off above and below the line of epiphyseal junction, respectively.

This is a very important point in the growing bones of children, in order not to interfere with the lengthening of the limb; but it was not so important in the present case—that of an adult.

The bones were then opposed, but not fastened together. A drainage-tube was put in the most dependent part of the wound, not passing between the ends of the bones. Strands of cat-gut were also laid along the upper surface of the junction between the bones. The soft parts were stitched together with alternate sutures of silver wire and silk thread; and the limb, after being dressed, was placed in an "Ashhurst" splint, a long support made of heavy wire, so arranged that the dressing can be changed without removing the splint. In this splint the limb will remain for four weeks, after which a plaster of Paris bandage will be applied and left on for two weeks longer. The patient will then be allowed to go about on crutches till the healing is completed.

Four days later the patient's temperature was normal, and she said that the leg gave her no pain.

Dr. Deaver did not use the Esmarch bandage in this operation, on account of the danger of consecutive hemorrhage, from vaso-motor paralysis due to the pressure upon the vaso-motor nerves by the Esmarch tourniquet.

UTERINE HEMORRHAGE IN PREGNANCY.
—*Parish.*—Case of hemorrhage from the uterus in a woman eight months pregnant. Whether a case of placenta previa or not, Dr. Parish said that the proper treatment here was to put the woman to bed and keep her there, and not allow her to rise from it for any purpose whatever. He advises a physician who has a case of placenta previa or suspected placenta previa on hand, to provide himself with a Barnes's dilator. In a dangerous hemorrhage, this will not only dilate the os for delivery, but will also act as a tampon.

It is not well to keep a dilator in the office as you keep other instruments, be-

cause the rubber loses its elasticity in about two months, and is then useless.

If you have no dilator, use the tampon; though of course only when absolutely necessary. He does not approve of absorbent-cotton for tamponing, as recommended by Parvin; for he says that the cotton, on account of its great attraction for fluids, is likely to favor the hemorrhage rather than to check it.

For his own part, he prefers a long strip of muslin or linen, such as an ordinary roller bandage, soaked in bi-chloride. Especial care should be taken that the material is tightly packed around the os; then the vagina is to be filled; and finally external pressure kept up by a T-bandage.

If in delivery it be necessary to perform version, give an anæsthetic, in order to relax the uterus, and thus avoid the laceration of it, otherwise almost certain.

After delivery, hypodermic injections of ergot, injections into the uterus of hot water, or even a styptic applied to the internal surface of the uterus, will stop the bleeding if the inertia of the uterus is too great for proper contraction.

NEURECTOMY FOR NEURALGIA MAMMARY CANCER.—Pancoast resected the supra-orbital and the supra-trochlear nerve of one side for neuralgia. He also removed the right breast of a woman for scirrhus carcinoma.

The next day Goodman removed the left breast of a woman for a similar cause. This woman had spent two years and two hundred dollars under treatment by some old woman quack, a so-called "cancer doctor."

At the time the growth was removed, the breast was much inflamed from the treatment; and during the two years the patient had suffered tortures from the irritating plasters.

RHEUMATIC ENDOCARDITIS.—*Walker.*
—Dr. Walker exhibited a woman of 25, who had just passed through an attack of articular rheumatism. She has a high-pitched mitral systolic murmur, showing slight regurgitation, from endocarditis. The attack of rheumatism was successfully treated with salicylate of soda, and the pain has been gone for some time.

He brought the case before the class in order to impress upon them the fact that patients suffering from articular rheumatism were often allowed to leave their beds too soon, in many instances to their lifelong danger and discomfort; and also that the medicine should be kept up a considerable time after the trouble had apparently left. The patient would be kept strictly in the recumbent posture, one that is most favorable to the closure of the valves; and he hoped to remove the most of, if not all, the mischief.

Endocarditis rarely follows an attack of rheumatism involving a single joint; but is the rule with polyarthritic attacks.

He showed several cases of rheumatoid arthritis in more or less advanced stages of deformity.

With regard to this disease, he remarked that arsenic leads all remedies in value; but that in a patient over forty or fifty years of age treatment of any kind is usually of little avail.

Last November he had a case of rheumatoid arthritis in a young person, on whom almost numberless drugs had been tried with no permanent effect. He gave five-drop doses of Fowler's solution, and in two days marked improvement was noticed. Since that time there have been only two insignificant attacks, so slight, in fact, as almost to allow him to say that the patient has been free.

Massage, electricity, faradic or galvanic, baths, and the like, are each beneficial in some cases, hurtful in others. Experiment alone will tell.

REFLEX NEURALGIA OF THE FIFTH.—Garretson relates the case of a naval surgeon, who for two years suffered the most excruciating tortures from a neuralgia extending just along one side of the longitudinal sinus of the dura mater. Garretson gave him instant relief by extracting one of his lower bicusps. Some years ago, Garretson had discovered a small branch of the fifth pair of nerves that passed back just in the line of the surgeon's pain; so he at once suspected a reflex cause, and found it in an irritating tooth.

When a patient comes to you complaining of œdema of the prepuce, without local disease or injury, or

œdema elsewhere, look for Bright's disease—the cirrhotic form.—*Waugh.*

WILLS EYE HOSPITAL.—*Keyser.*—For a case of *phlyctenular conjunctivitis*, Keyser prescribed this ointment.

R Hydrargyri oxidi flavi. gr. $\frac{1}{4}$
Adipis benzoati. 3j

A case of *paralysis of the right external rectus* came before him a short time since. A specific origin was suspected, and the man was put on doses of gr. v. iodide of potash. In a week the justness of the treatment was proved by the removal of the trouble.

A NEW ANTISEPTIC.—Keyser considers the new antiseptic, silico-fluoride of sodium, as the best in treating the eye. He uses it in his cataract operations, and also in gonorrhœal ophthalmia, instead of boric acid; and finds it much more rapid and certain in its action. The solution used is a saturated one—gr. $\frac{1}{2}$ to the f3.

FACIAL EPITHELIOMA.—Keyser has good success in treating epithelioma of the face with powdered chlorate of potash. It is kept constantly applied to the spongy growth and the irritation thus set up effectually removes the growth. This is of use only where the growth is soft.

CALOMEL is good in all phlyctenular troubles; but do not use it in phlyctenular keratitis during the stage of severe inflammation. Dust the calomel in the eye, and with the finger gently roll the lids over the ball, till tears are started. If you stop short of this, the calomel will cake in the eye.

ABDOMINAL SURGERY.—In cases of removal of the ovaries, Montgomery prefers braided silk ligatures for ligating the pedicle, as he is then certain that the ligature will remain on long enough to avoid all danger of hemorrhage.

In the course of over forty operations of this character, he has had no untoward result from the presence of the ligature.

For sewing up the abdominal incision he uses silk gut. Two small needles are put on each suture, one at either end. Each needle is then passed from within out, care being taken that the peritoneum is included well within the suture.

As a dressing for the wound, he employs simply a few layers of surgeon's lint soaked in carbolic acid and glycerine, 1 to 12; and over this is placed a package of absorbent cotton; the whole held in place by strips of adhesive plaster.

The giving of ice and cold water tends rather to increase thirst, so he gives instead an enema of a pint of warm water. Thus not only is the thirst allayed, but the blood is also not materially increased, and consequently the danger of hemorrhage is lessened. He checks the vomiting usually following the administration of ether, by two-drop doses of a four per cent. solution of hydrochlorate of cocaine every fifteen minutes or half hour.

A tendency to tympanites may generally be overcome by placing layers of cotton on the abdomen, and then tightly passing around the body strips of adhesive plaster. This keeps up the intra-abdominal pressure.

INFANTILE COLIC.—When children complain of pain in the stomach, Dr. Atkinson says that a possible neuralgic character should be borne in mind. This is frequently not recognized. He advises an orange before breakfast for children, or for anyone suffering from loss of appetite. The acidity of the orange will often create a desire for more food.

ACID INDIGESTION.—With great acidity of the stomach, there is generally a burning pain along the line of the œsophagus. Patients frequently complain of "heart-burn," too. For digestive trouble in a girl of ten, from acidity, he gave:

R Spiriti ammoniæ aromatici.....ʒij
Sodii bicarbonatis.....ʒi
Syrupi.....ʒi
Aque.....ʒiij M.
Sig.—A dessertspoonful every 3 hours.

If there should be much pain in the stomach, he advised the mother to apply flannel wrung out of hot water.

INDIGESTION.—Girl of five; has lost much flesh in the last six weeks; has cough and general malaise; is in the habit of eating an apple and a banana for breakfast. Dr. Atkinson is strongly opposed to the banana diet. He cited a case in which severe convulsions fol-

lowed the eating of two bananas by a child. With great difficulty it was brought through the attack. The loving father then repeated the dose, contrary to the strictest orders; and this time nothing could save the victim.

Bananas for children should be few and far between.

SOCIETY NOTES.

At the Philadelphia County Medical Society, Dr. L. Turnbull read a paper upon the treatment of otorrhœa.

By the use of cocaine, chloroform or morphine, pain is relieved; while the internal administration of aconite or antipyrin, with hot-foot-baths and local depletion, serve to check inflammation. The parts should be cleansed with a mild, warm, antiseptic wash, and, as a rule, all goes well.

For perforations, no agent has acted so promptly and well in his hands as very finely levigated boric acid, alone or with one-tenth part of iodol. If used alone, boric acid should be sterilized by heating before using, on a platina foil. The powder must be carried down to the perforation and through it. The diseased membrane should be fully covered by it, but not sealed.

Dr. Randall called attention to the great value of Eustachian inflation in these cases, in blowing out secretions, cleansing the cavity and preventing adhesions.

He thought that naso-pharyngeal disease usually precedes aural affections when the two co-exist.

Dr. Turnbull adverted to the danger of blowing unhealthy nasal secretions into the ear, unless the nose is cleared out before inflation is practised.

At the Clinical Society of Maryland, Dr. Herbert Harlan read a paper upon the use of eserine in corneal ulceration. In that troublesome form of ulceration of the cornea known to Baltimore oculists as "oyster shucker's corneitis," eserine had given very good results. Out of eighteen cases, eleven of which were of the variety mentioned, only one failed to improve under the remedy

The method of using the drug was to instil a solution containing one grain of sulphate of eserine in an ounce of water, into the affected eye, one, two, or three times a day. Improvement usually begins at once and is maintained until restoration of the cornea is complete.

In the same society Dr. Tiffany reported two cases of laparotomy for purulent peritonitis with one recovery. In neither of the cases was the exact cause of the inflammation ascertained.

At the Obstetrical Society, Dr. Joseph Price reported a case of typhoid fever following ovariectomy. The temperature after the operation remained about one degree above normal for nine days, when a rigor occurred, ushering in a typical typhoid fever, characterized by the temperature wave, stools and eruption.

The points of interest are, that the patient was probably in the preliminary stage of typhoid when the operation was performed; and that neither the fever nor the operation appeared to influence each other unfavorably.

Dr. Goodell exhibited a specimen of hæmato-salpinx, and another of fibrocystic uterine tumor, weighing 33½ lbs.

Dr. H. A. Kelly spoke of the variety of hæmato-salpinx which contains much

cover perfectly when thus treated, and remain well if the uterus be properly supported. He abstracts from six to twelve drachms of blood every five to seven days, following the depletion by a glycerole or boric acid pack, which may be retained until the next depletion.

Dr. J. C. DaCosta approved of depletion, but took from four to six ounces of blood.

Dr. Goodell did not bleed so frequently as of old, believing that the importance of uterine congestion was overrated.

Dr. Parish endorsed Dr. Kelly's remarks. He had seen a perfect union of a lacerated cervix result, but no relief from the pain, etc. following.

Dr. Kelly exhibited a self-retaining speculum for the genu-pectoral position.


Dr. Baldy reported a case of hysterectomy followed in four months by ovariectomy, and in six weeks more by abdominal section for purulent peritonitis. Death ensued six days after the third operation.

Dr. Deaver reported a case of extra-uterine pregnancy, with obstruction of the bowel by membranous bands, and a foreign body in the sigmoid flexure. The patient died the next day.

Mr. Spangler, of the *Ledger*, gave a very interesting lecture at the Medico-Chirurgical Hospital, upon "The Isle of June." The hall was crowded to its utmost capacity. The lecture described a trip to Nassau, in the Bahamas, and was beautifully illustrated by stereopticon views.

DREAMS AND DIET.—I find that I can control my visions by dieting. If I wish to enjoy a calm night, I eat toast and milk before retiring. Squash-pie acts on the bumps of combativeness and acquisitiveness. The consumption of a squash-pie has led me to slay a man for his money within fifteen minutes after going to bed. To make my brain a chamber of horrors, I sit down an hour before bed-time and eat three sardines, six olives, a little Roquefort cheese with crackers, washing down with a bottle of Bass' ale. Before morning I charge single handed with my razor on herds of wild horses and jump from sundry steeples.

—*Buffalo Courier.*



watery but bloody fluid, of unknown origin. This fluid he had found to be intensely poisonous, producing speedy and violent septic peritonitis. He also exhibited a knife-blade tenaculum (Fig.). Local depletion he considered a powerful adjuvant to other treatment. Chronic or recurring pelvic congestions, accompanied by great pain and discomfort, can often be tapped by a free depletion of the cervix. Many neurotic symptoms associated with a congested, puffy, blue, plethoric cervix, are also benefitted by depletion, together with the use of glycerole packs and tampons. No other method is as serviceable and speedy for laceration and eversion of the cervix, with infiltration of the lips. Many cases in which he formerly operated now re-

TRANSLATIONS.

THE INFLUENCE OF MEDICINES ADMINISTERED TO A NURSING MOTHER ON THE CHILD.—Fehling gives the results of a series of researches on the influence of medicines administered to the mother on the nursing child. The results of his experiments are as follows: It is generally admitted that soluble matter may be passed through the circulation into the milk supply and thus affect the child. It remains, however, to establish whether ordinary medicinal doses can be administered without injury to the child at breast.

I. It is well known that *sodii salicylas* has a direct influence in increasing the quantity of milk secreted. It was found that it had no deleterious action on the child up to doses of 45 grs. each, and as the dose is generally under that quantity, its influence on the nursing child need not be considered.

II. The examination for potassium iodide revealed the fact that it takes longer for this medicine to be secreted by the kidney of a child than does *sodii salicylas*, while the secretion is more intensive in the milk by *potass. iodd.* In twenty-four hours after the administration of the latter, the milk showed traces of the drug. It may be administered in 3 gr. doses daily to the nurse without hurt to the child.

III. In the examination of the child's urine when *potassii ferricyanidum* had been given in as high as 30 gr. doses, negative results were obtained in every instance. The mother's urine, however, gave positive reactions to the tests for the drug. Hence, it appears that the *mammæ*, have, like other glands, a selective power for different medicines, absorbing greater quantities of one than of another.

IV. Iodoform gave the opposite result to *potass. ferricyanidum*, and demonstrated how small a quantity of the drug was sufficient to impregnate the system of the mother, and show itself in the urine of the child. In a case of contusion of the vulva, iodoform was simply powdered over the surface, shortly afterwards it was possible to detect iodine in the urine of the child that the woman was nursing; no ill results however, ensued. It is

hardly probable, though possible, that the iodoform was broken up into iodine and its other components in the body of the mother. The writer has not noticed any evil results in his practice, arising from the direct application of iodoform in dressing the umbilical cord in infants, even when the dressings were allowed to remain eight days or longer. From this fact, he is led to infer that infants are less liable to present an iodoform idiosyncrasy than adults.

V. His experiments with mercury showed that the quantity that passed into the milk varied very greatly, and in the most marked cases the quantity was very small, nevertheless, by long-continued use it will pass over sufficiently to have a marked therapeutic action on the child when administered to the mother in large doses.

VI. The studies of the writer regarding the influence of the various foods partaken of by the mother on the infant at breast, serves to break down the prejudices which affect not only the common people but many practitioners as well. How often do we hear it said, that the mother must not use acid foods, salads and the like! Fehling experimented with citric, muriatic and acetic acids. It was impossible to determine as to the direct passage of the acids through the milk, nevertheless, the derangement of the child's health could be determined. In each instance when the child was well in the beginning of the experiment, no deleterious effect could be observed. The child remained quiet, the secretions normal, and the previous and following examinations of the milk gave an alkaline reaction. It will be seen from these experiments, that when an otherwise healthy mother has safely passed through child-bed and is up and around her ordinary occupations, she may partake of sour foods if she so desires, without fear of injury to the child.

VII. Of the greatest importance, however, for the practitioner are Fehling's experiments regarding the influence of narcotics upon the nursing child. *Tinct. opii simplicis* when administered in 15 to 20 *m* doses, had no apparent effect on the child. Hypodermatic injections of *morphia sulp.* of as

much as $\frac{1}{3}$ of a grain were administered without any deleterious effect upon the child. In some instances the child would sleep from four to five hours, but in the majority of cases no evil results were obtained whatever.

VIII. The results of his observation on chloral in doses of 25 to 45 grains, in most instances gave only the slightest indication of any action on the child. In one case, considerable restlessness resulted, in another somewhat prolonged sleep. If an interval of from one and a half to two hours is allowed to elapse after the first dose, then the drug may again be administered in similar quantity without injury. One may in practice, administer continuously the ordinary dose without fear, being careful to allow a considerable time to elapse between the doses, although not over two hours should intervene.

IX. Atropia, on the other hand, as has been previously observed by Preyer, passes very quickly through the mother's circulation and affects the child almost simultaneously. This has been observed where a one per cent. solution was hypodermatically administered. In the use of this drug, even as with opium, morphia and chloral, it is necessary to understand the idiosyncrasies of different individuals, and use the greatest care to avoid the cumulative effect of the drug.—*Berlin Woch.*

A CASE OF MAMMARY CANCER TREATED BY INOCULATION WITH ERYSIPELAS.—Axel Holst reports (*Centralblatt für Bakteriologie und Parasitenkunde*, Number 13, 1888) the following: A woman, forty years of age, otherwise in good health and well-nourished, had a scirrhus of the right breast one year ago which was then extirpated. A few months later the cicatrix became nodule, and ulceration (skin cancer) appeared. In August, 1887, almost the entire surface of the right side of the chest, from the clavicle to the borders of the ribs and from the sternum to the posterior axillary line was involved, and the glands over the clavicle were large and hard, the axillary glands could not be felt through the infiltrated granulating tissue which here and there formed distinct tumors. As an ultimate resource the patient was inoculated

with a culture of the erysipelatous coccus (the fifteenth generation from a case of erysipelas of the legs, obtained 19 $\frac{1}{2}$ months previously); a second inoculation was required before a result was obtained. Twenty-one hours after the last injection, the patient had a chill, and shortly afterward, an erysipelatous blush appeared around the ulcer and soon spread to the arm which presented the typical appearances of erysipelas. Seven days after the inoculation there was a sudden fall of the temperature, and the patient rapidly improved.

The result within the first ten months and a half was very striking; the upper surface began to cicatrize, the infiltration was much reduced, so that the disease appeared to be more superficial than before and the entire growth seemed to contract. The arm, however, remained swollen, and did not entirely recover from the erysipelas. Three months later, the skin again began to break down, the glands were enlarged, and the left breast became involved. The general health rapidly declined, and her strength was materially reduced.

While the ultimate result in this case was not encouraging, the reaction from the inoculation was accompanied by a period of inactivity of the cancer-growth during which repair took place. The immediate effect was very suggestive. In a case reported some years ago by Neelsen (*Centralblatt, für Chirurgie* 44, 84), rapid increase of the mammary cancer occurred after accidental inoculation with erysipelas.

DUE PRECAUTION. — Quite a little bustle has been made by the newspapers because a certain physician, who was recently summoned to appear in a court in New Jersey, refused to kiss a very dirty-looking Bible, which was presented to his lips in the administration of the oath. The episode occasioned a stir in court, and the physician in question was obliged to set aside his feelings to comply with the legal requirements.—*Medical Register.*

[We meet this difficulty by opening the book and kissing the open pages instead of the cover.]

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 15, 1888.

EDITORIAL.

HIGH LICENSE.

WHAT effect the working of the license law will have upon the morals of the community, and per consequence, upon its health, remains to be seen. That it will inure for good can scarcely be doubted. Every additional bar is another incentive to drink; while each adds to the possibilities of lust, brawling and crime. There will be more disreputable saloons among seven thousand than among seven hundred; especially when the amount of the license money to be forfeited by misconduct is large enough to make respectability highly desirable. Greater care will assuredly be exercised in preventing minors and inebriates from obtaining liquor when the penalty is so serious.

It is fortunate for the city that she possesses an Executive who is both fearless and energetic in the enforcement of the laws.

But not the least of the benefits of the high license law accrues to the barkeepers themselves. From personal observation we know that many laboring men have drifted into the liquor business as follows: A little money has been saved, and the wife, anxious to make her rent, and allured by the apparent profit, starts a beer-saloon; while the husband works at his trade. Some day the latter is sick, or out of work, or tired, and he stays at home to attend bar. The sick or lazy days becomes more frequent; and as his presence stimulates the sale of beer, the man finally gives up all pretence of work, and relies wholly upon his bar.

Throughout the city, numbers of these men are making preparations to give up their saloons and to return to their former occupations. In spite of the apparent profit in beer-selling, elusive as fairy gold, the financial results of steady application to mechanical pursuits will prove greater in the end; while the moral improvement of the man and his family will be even more manifest.

DOSIMETRY.

A new prophet has arisen and his name is Burggraave. He is said to be an Emeritus Professor of the erstwhile turbulent city of Ghent, and has a long string of grandiose titles besides. The system has adherents in several countries, and in America has attained the dignity of a monthly journal. In a single number of this publication we read of the jugulation of chronic dysentery, double pneumonia, tetanus, pulmonary tuberculosis, chronic enteritis, typhoid fever, cystalgia, and whooping-cough. Not simply curing these formidable affections but absolutely *jugulating* them; relentlessly seizing them by the throat and choking the life out of these enemies of mankind.

We wish we could jugulate pulmonary tuberculosis. We have longed, oh so earnestly, that we could hold in our hands the divine power to throttle this terrible foe. But we can't do it. We are forced to content ourselves with waging a guerilla warfare against it, seeking to delay its march when we cannot beat it back. But Dr. Ulysses Braga does it, by giving one granule each, of hyoscyamine, strychnine, morphine and arseniate of iron, ten times daily, with a teaspoonful of Seidlitz-Chanteaud every morning!

Briefly speaking, the system of dosimetry consists in the administration of the active principles of plants, and such chemicals as are active in small doses.

They are given in dosimetric granules, which are put up in little glass tubes, each containing ten granules. They are prepared only by Chanteaud, of Paris.

The idea of specific medication, the use of a single remedy for each condition or group of symptoms, seems to underlie the system of Burggraave, as it does those of Scudder and Hahnemann. In some respects this is of value; and the adoption of such a principle would greatly improve the therapeutics of many physicians, who still use the "shot-gun" method. For instance, we note that a certain practitioner, whose name shall be unuttered, has deserted the "old school," for dosimetry. This gentleman, who was never a regular physician, placed upon record in a St. Louis journal a case in which he used, externally and internally, forty-seven different remedies at one and the same time; and yet the patient recovered. Truly, the endurance of the human system is amazing; and the physician has done well in exchanging such poly-pharmacy for dosimetry.

But this idea is far from being strictly carried out by the disciples of the new cult, for we noted recently a case in which a patient died after taking over 200 granules of several sorts in one day. This was too much jugulation.

We have procured some of these medicines, and have given them a trial. They appear to be fairly active, the effects corresponding with what would be expected from the doses as given. We have found no special effects in Chanteaud's granules which render them different from those of any other reputable manufacturer. Between the granules and tablet triturates the only difference is in the novel way in which the former are put up. The ladies admire the 'cute little tubes; and for those to whose therapeutical resources

this would be a tangible addition, we would recommend the granules.

Neither the remedies themselves, their doses, or the uses to which they are put, show any novelty; and the adoption of dosimetry is consequently the limitation of one's practice to the use of the goods produced by Chanteaud. We do not consider this a sufficient foundation for a new system of medicine; though it would undoubtedly prove lucrative to Chanteaud. W. F. W.

THE RECOGNITION OF HUMAN BLOOD STAINS.

THE subject of the possibility of absolutely distinguishing the blood of man from that of other animals, which is under any circumstances a matter of great interest, but in medical jurisprudence oftentimes a question of vital importance, has been recently rather warmly discussed in medical circles in this city. The discussion was revived by the newspaper report of the testimony of the medical expert in a recent trial for murder in this State; in which the testimony was given unequivocally that certain blood stains were from a human source and that human blood corpuscles often could be restored so that an expert could recognize them and absolutely distinguish them from all other blood.

Dr. Formad, the expert referred to, in a very interesting communication to the College of Physicians of Philadelphia, at its last meeting (May 27,) explained his statement, and claimed that he had been misrepresented, in that the whole of his reply was not given by the reporter. The results of his investigations, extending over a series of years, are summarized very briefly as follows:

1. It is impossible to state with perfect assurance, that the blood of man can be distinguished from that of some wild animals, such as the capybara and

opossum although careful measurements will afford means for a probable diagnosis.

2. It is possible to positively distinguish between human blood and that derived from ordinary domestic animals.

3. Therefore, when as in most cases the expert is called upon to answer the question "Does this stain, which is admitted to be blood, come from a man or from any domestic animal?" he can say, "If it must be one of the two, then it is human." The lecturer uses a 35 per cent. solution of potassium hydrate to float the corpuscles, in old stains and adopts the usual methods of measurement and mounting. F. W.

ANOTHER CASE OF APPARENT CURE OF CANCER OF THE STOMACH BY CUNDURANGO.

THE readers of the TIMES will remember the report of the remarkable results obtained by L. Riess in the Berlin Municipal Hospital with cundurango in gastric cancer.* In the *New Yorker Medizinische Presse* for April, Dr. Franz Foerster reports four cases presenting all the symptoms of cancer of the stomach which were treated with this drug. In two cases no favorable effect was noticed; in the third he believes that life was prolonged, while in the fourth case a positive and permanent cure resulted. The diagnosis must of course remain somewhat in doubt; but the symptoms and physical signs present were strongly indicative of the disease mentioned.

The treatment of gastric cancer is in general so entirely hopeless that any addition to our therapeutic resources, which promises even partial relief from the distressing symptoms, is deserving of a hearty welcome.

The testimony of all recent writers upon the subject is to the effect that

cundurango is well borne in these cases; that it arrests vomiting, reduces the pain and stimulates digestion. With the added hope of producing a cure, an additional reason is presented to give the remedy a trial. Dr. Foerster used a fluid extract of the drug, given in half-drachm doses, with syrup, three times a day. G. H. R.

NOTES FROM SPECIAL CORRESPONDENTS.

LETTER FROM PARIS.

WHOOPING-COUGH is perhaps the most contagious of all diseases, but it was not until last year that its special microbe was found by a Russian physician, Dr. Athanassieu. He states that they are very fine and short micro-organisms, and that a cultivation of what is called the "*bacilli tussis convulsivi*" will produce whooping-cough in young dogs. Be this as it may, this author concludes that the treatment of whooping-cough by inhalation and insufflation of medicinal substances is the most rational of all. We take this opportunity to give the methods in use here. Baréty in 1881 proposed to employ inhalations of spirits of turpentine. He uses two saucers half full of the turpentine, one of which is to be placed under the bed, and the other in a corner of the room, and the patient is allowed to sleep in this continuous vapor of the drug. This treatment met with considerable success and it is still in use here. Later, M. Moncorvo published a work admitting that the pathogenic microbe inhabits only the upper respiratory passages, and proposing to cure whooping-cough by painting the mucous membrane with a solution of resorcin. But this is pretty difficult to do in very young children. M. Mohn, last year stated that we have only to burn sulphur in a room at the rate of 25 grammes per cubic metre of space, for five hours; and then, having carefully disinfected the child, allow it to occupy the room and breathe the vapors that remain, after ventilation, and a cure will follow in twenty-four hours.

* PHILA. MED. TIMES, May 28, 1887.

Certainly the remedy suggested is not difficult to try, and while it has not cured quite so quickly as the author says, it has succeeded in a number of cases. Paul speaks well of the method of keeping the room charged with the vapor of carbolic acid. A Richardson spray apparatus is used, in which a solution of four to five per cent. of carbolic acid is put, which is sprayed all over the room until about fifty to sixty grammes have been consumed; enough, in fact, to give a strong odor of carbolic acid on entering the chamber. Hydrochlorate of cocaine will cause local anæsthesia of the mucous membranes, and prevent to some extent the spasmodic cough, but it is not a cure. The following formula for a polybromide often succeeds in arresting whooping-cough.

R Potassii bromidi,
Potassii sodii.....
Potassii ammonii...āā... 5 grammes
Syrupi aurantii flor...300 grammes
M. S.—Three to four teaspoonfuls a day.

Germain Sée uses the following powder:

R
Powd. belladonna root...20 centigrammes.
Dovers powder..... 50 centigrammes.
Flower of sulphur (washed) 4 centigrammes.
White sugar q. s.
M. Divide in 20 packets and take one to two of them per day.

If there is insomnia use also a syrup of lactucarium. Others, again, believe that quinine is a true specific for whooping-cough, given with tannin, benzoin, etc., as follows:

R. Sulphate of quinine..... 2 grammes
Salicylate of bismuth,
Powdered benzoin....āā...10 grammes
M. Sig.—Use by insufflation into nose, and pharynx.

Legroux, of the Childrens' Hospital in Paris, uses a powder as follows:

Quinine hydrochlorate.....2 grammes
Powdered benzoin.....8 grammes
M. To be used in the same way as the last.

In fact it may be stated that most French physicians use a projection of some powder in these cases, either of pure quinine, or else mixed, one to three, with any of the following substances: Boric acid, tannin, salicylic acid, bi-carbonate of soda, ben-

zoin, iodoform, or marble dust; and that this last form of medication combined with antiseptis is all that is now used in whooping-cough.

PULMONARY HYSTERIA.

Pulmonary hysteria is a form of that trouble which is described by Petit. An interesting case is given of a young woman of 21, who presented all the usual symptoms of pulmonary phthisis in the last stage, abundant hæmoptysis, cough, expectoration, wasting, anorexia, diarrhœa, and night sweats, but on careful auscultation only a few mucous rales could be heard, and the sputum did not contain any elastic fibres, or Koch's bacilli. After some time she was taken with a regular hysteric attack, which was followed by a return of her menses. For several months afterwards she had frequent attacks, during which time all her other symptoms mended, and finally disappeared, leaving her with the hysteria only. Several such cases having been noticed lately, an investigation was made, and quite a number were collected by Petit. He proposes to call the trouble "*Hystérie Pulmonaire*," as it will explain the symptoms and the cause from which they arise as well. It is a matter of importance to recognize this form of hysteria, as the treatment is quite different from that of tubercular cases.

PHENACETINE.

Phenacétine is the name given to a new product which is similar to antipyrine, and Dujardin-Beaumétz has been experimenting with it. It is called also *Para-lacet-phenetidîn*. It is a white insoluble salt of a crystalline form, but still more insoluble than antifebrine. In fever cases it is given in doses of 30 centigram. A durable fall of temperature is produced, in which the new drug is superior to antipyrine.

DIABETES.

Speaking of antipyrine again, it may be well to mention that trial is now being actively made of its virtues in diabetes; doses of two to three grammes a day are used, and it seems to cause a diminution of urine and above all of the sugar eliminated. M. Paul says it should be given with bi-carbonate of soda, to prevent any stomach trouble. Huchard describes the case of a patient that he has

been observing since February, who had a polyuria to the great extent of 28 quarts of urine per day, which by the use of antipyrine has now been reduced to three quarts. A number of other cases are given where both urine and sugar were reduced. Germain Sée has been trying this for some months and will shortly report to the Academy of Medicine upon it. So far it is much too new to give a definite statement, but it may be spoken of and tried until we have further evidence. While upon the subject of diabetes, we may mention that saccharine is also being used in that disease with varying results. M. Worms finds that it causes all sorts of dyspeptic troubles, weight in the stomach, loss of appetite, &c., &c., but other good observers have not seen the aforesaid bad effects. There is a danger however to public health, and we who are well may suffer from the use of saccharine, owing to the fact that it is not an aliment, but simply passes through the economy without being transformed or assimilated. If the candy makers and infant food dealers get hold of it, it will be bad for us, to say nothing of the fact that when you take your cooling drink of soda-water next summer the flavor will not only be a snare but the sweetening a delusion; and in order to get some nourishment it may perhaps be well (?) to ask for the usual *stick* in the soda water drink.

DISPOSAL OF SEWAGE.

The question of the disposal of town sewage is again being discussed in Paris. The members of the council of public hygiene differ in regard to it, so that it is an unsolved problem as yet. The large plains of Gennevilliers, outside of the city, have been used for over seventeen years to distribute the sewer fluids upon, and the system has met with great success, the vegetables grown there being of exceptional size. There is something, however, to say in regard to the quality, which is claimed not to be so good as that of the same plants grown on other soil. The operation is not a simple filtering of the water thrown on the land; it requires ground thick enough to allow the sewage water put upon it to pass away very slowly, and to allow enough oxygen

to enter it to destroy the micro-organisms that may be in it. The drainage must also be perfect. We were shown samples of water taken from the sewers in the centre of Paris, and then of that taken from the drains after the sewage water had been put on the plain of Gennevilliers, and *this last was as pure as spring water* in appearance. Chemical and bacteriological tests prove also that it is free from all microbes, and much purer than river water.

Proust, who is Professor of Hygiene at the Paris faculty, has induced the government to open a *Museum of Hygiene* in the new buildings belonging to the faculty. We attended the inauguration last week, and Proust showed plans and drawings of the water works and samples of the products of such lands. The Museum also contains samples, erected and in working order, of most of the hygienic apparatus known to science. A series of well-built water-closets show the best methods in use.

But to return to the irrigation system of sewage, the city does not own one-third of the land used, as the farmers about are only too glad to receive the sewage. Owing to insufficient drainage, at first there was a good deal of intermittent fever; but for some years back, although the population has tripled, and the lands used increased, there has been no sign of fever. The value of this form of manuring is estimated at forty millions of francs. The same system is used in Berlin, with success. The great importance of such questions in our fast-growing cities makes us allude to this matter. There is no doubt that many of our diseases are carried about and produced by sewage water or the active principles contained in it. Quite a large majority of our hygienists approve the above plan for its practical value, and a new addition to the system at Ascheres was approved of by a vote of twenty-four to seven. Others, however, think that everything should be allowed to go into the sewers and be conducted by large canals to the sea; or at least on to lands that are not used for agriculture. M. Pasteur, while willing to admit that earth is an excellent filter, fears that there may be a con-

tinued accumulation of germs from this system; and as some of them are not destroyed by oxidation, such as the germ of septicæmia, etc., he did not approve of the project. Certainly, if we could be sure of placing even the microbes of typhoid fever, diphtheria, scarlatina, etc., out of reach of us, it would be well; but we are not sure of doing so. If we could, most of our diseases would disappear, for the old idea of spontaneous generation must be now abandoned by everybody, as a chimera. Certainly, all contagious and virulent diseases are shown to come from the presence and development of microscopical organisms, and if we had a sure means of destroying them, the diseases would be kept in abeyance, and would finally no longer be seen on the face of the earth. But, says M. Pasteur, it would be better in our present state of knowledge to throw sewage into the sea rather than to accumulate it on lands. Proust, however, puts forward the fact that during the cholera here two years ago, none was seen at Gennevilliers; and the sanitary state of that village is better than that of any other for miles around Paris, which often has epidemics that do not come to Gennevilliers. The end was a victory for the irrigation plan, partly owing to the great cost of making canals to sea from Paris, owing to the distance.

ASSISTANCE FOR DROWNING PERSONS.

A rather curious statistic is given lately, which gives an idea of Parisian life. It is in regard to medical and other assistance given to drowning persons, as well as to others who may have met with a street accident. Notwithstanding that the banks of the river Seine are mostly high and walled in, still 313 persons managed to get into it during 1887, and 921 had medical attention at police offices in town, after various accidents. Among the 313 who got into the river, 175 threw themselves in, 91 fell in by accident, and 50 because they were drunk. Of the whole number 298 were saved, and only 11 could not be brought to life again; the other 4 were found drowned. This excellent result was obtained by having little frame saving stations all along the banks of the river,

with men and boats ready to save people, and telephones to call a doctor—an idea that might commend itself to some American cities.

ANTIPYRINE IN GONORRHEA.

The following solution is another proof of the extent to which antipyrine is invading medical practice. It has had great success in gonorrhœa, both in the acute and chronic forms:

R Dist. rose water..... } aa 100 grms.
Dist. cherry laurel water }
Sulphate of zinc..... 50 centigrams.
Antipyrine 5 grammes.

M. S.—Inject two or three times a day, as usual.

THOMAS LINN, M.D.

ABSTRACTS AND NEW REMEDIES.

THE SOCRATIC METHOD IN CLINICAL TEACHING.—Socrates taught by interrogation, by probing the knowledge or the ignorance of his hearers, by suggesting difficulties and inconsistencies, and by hinting rather than elaborating the conclusions towards which his mind was impelled by the evidence at his command. We need not stop to point out how superior in persuasive power such a mode of reasoning is to the dogmatic method, which relies for acquiescence mainly upon the authority of the teacher. In the former case truth instils itself into the intellectual nature and acts like a silent but mighty heaven, whereas it is a very general characteristic of the human mind to resent dogmatism as an insult to the intelligence. Of the "glorious gains" of the long ages of human progress, few are so precious as the wide recognition of the great principle that truth may safely be allowed to win its way by its own inherent force, and that it needs not to be bolstered up by authority or precedent, but claims simply a fair field for development and progress. The "Socratic method" has been a favorite with teachers of all ages, and it has proved of immense value in clinical instruction.

A favorite method much employed by the most distinguished members of the profession is the following: A class of students having been grouped round the patient's bed, one is selected and allowed a few minutes to make an ex-

amination and form his conclusions regarding the nature of the disease. He is then questioned, and his answers form the basis of the instruction conveyed to his fellows. If his answers be correct and his conclusions just, the teacher amplifies and emphasizes them. If he has hastily rushed to a premature conclusion, a series of careful questions leads him gradually to see the inadequacy of the grounds upon which it has been based. If he has overlooked any important symptom, the interrogations are so framed as to direct his attention to the affected organ, and to induce him to note the symptoms himself, rather than to announce it plainly to him. This method, in the hands of a master, is beyond question one of the most powerful means of intellectual stimulation at our command. It has the double advantage of conveying instruction in a very impressive form to one individual, and of enabling others to profit alike by his knowledge and his ignorance.—*The Lancet*.

SULPHUR IN SCIATICA.—Duchesne recommends enveloping the affected limb in a coating of sulphur, spread on flannel.—*Jour. de Méd. Paris*.

STERILIZED FOOD FOR INFANTS.—It is a curious fact that while all older people are chiefly fed on sterilized (cooked) food, infants are fed on food peculiarly adapted, by its composition and fluid state, to offer a home to bacteria.

In treating some cases of summer diarrhoea, directions were given that all milk used for infants should at once, on receipt, be steamed. After this it was kept covered and on ice if possible. The result was that the little patients began to pick up, and were soon well.

The ordinary milk supply of a large city is a day or more old, slightly acid, and contains many growing bacteria.

Fresh milk sterilized, or collected sterile and protected from organisms, undergoes no changes, even after the lapse of indefinite periods, except the separation of the fats. If bacteria are present, a great variety of changes may occur. As milk affords such a fine medium for growth, all efforts to rid it of bacteria must be governed by the use of poisons—germicides—or some physical condition inimical to their life.

The first method is not admissible in foods, while the other offers little chance of success except by heat. Cold retards their growth, but does not kill. Boiling is undesirable, but steaming produces but slight changes in the milk, and is efficient.

—*Amer. Journal Med. Sci.*

[A number of experiments are detailed, showing that when milk has been steamed for fifteen minutes, the development of bacterial colonies is almost or entirely prevented. A convenient apparatus for thus sterilizing milk is a desirable subject for inventive talent to grapple with.]

TREATMENT OF COPPERHEAD BITES.—In *Gaillard's Medical Journal*, Sharp discusses the symptoms and treatment of copperhead bites. The author concludes that the bites of this reptile in West Virginia are rarely fatal; whatever they may be in other States. His views on treatment are summarized as follows:

At first a bandage around the limb, not kept on over an hour, free scarification of the injured part, and washing in cold water; then the application of some cooling lotion to combat local inflammation. If there is much constitutional disturbance, prostration, etc., give whiskey, or carbonate of ammonia in such doses as the severity of the case demands, with morphine, or better still, morphia and atropia combined to relieve the pain. I suggest the atropia because of its stimulating effect on the heart. Except in cases of the greatest severity, it is unnecessary to use injections of aqua ammonia or permanganate of potassa, nor is it necessary to lay open the wound and use severe caustics, as these remedies will add to the succeeding inflammation.

CEREBRAL SYMPTOMS IN THE PNEUMONIA OF CHILDREN.—In the *N. Y. Med. Record*, L. Emmett Holt draws the following conclusions:

1. Cerebral symptoms in the pneumonia of children are very common.

2. Convulsions belong almost without exception to infancy, being rarely met with after two years. Occurring at the onset, they belong essentially to lobar pneumonia; they do not indicate a bad prognosis, nor even, in most

cases, a severe attack. When late convulsions come on, death within twenty-four hours may confidently be predicted.

3. Delirium comes oftenest between the ages of five and eight, usually in conjunction with extensive disease and high temperature. These cases, although severe, with but few exceptions recover.

4. There is no such intimate association between cerebral symptoms and apex disease as has been frequently stated. Such symptoms occur in only about one-fifth of the apex cases.

5. Nervous symptoms occur much more frequently (one-third of the cases) when the disease is extensive and the temperature very high.

It was not my purpose to enter into the subject of the treatment of these symptoms in pneumonia, as I have nothing new to contribute. I wish to emphasize two points which my experience has taught me. The first is that in hyperpyrexia the cold pack is safe, and the most efficient means to reduce the temperature and thus abate the brain-symptoms dependent upon it. The second is the use of antipyrin, not so much for reducing very high temperature—for I think the cold packs are safer than very large doses and altogether more satisfactory—but to allay restlessness, quiet delirium and cough and promote sleep. For this purpose, doses of two or three grains are sufficient for an infant of from six to nine months, and double the dose at eighteen months or two years. The dose may be repeated every six or eight hours.

SHOULD PHYSICIANS PATENT INVENTIONS?—In the *N. Y. Med. Record*, Dr. E. C. Atkins writes:

What difference is there between a physician's holding a patent on an instrument and holding a copyright on a book? Are not both virtually patents? A copyright gives the author exclusive control over the publication of his book, and gives him a royalty on each copy published.

A patent gives the patentee exclusive control over the manufacture of his invention.

Where is the difference?

A book is the result of a man's brain; so is an instrument. Both are benefits to the profession. Both cost money to elaborate, and time and labor to perfect.

But do we give the book to the publisher and let him reap the profits? I pick up from my desk a book on "The Eye," by a noted specialist, and on a front page find "Copyrighted by so and so," and in italics "*All rights reserved.*" In other words, it is patented. But if it is an instrument that has cost years to perfect, we must not patent it; it would be unprofessional. "Oh, consistency, thou art a jewel!"

GIBBES' DOUBLE STAIN.—The use of Gibbes' double stain for the bacillus tuberculosis has been unsatisfactory to many. It should always be heated in a tube and poured into a watch-glass, and the prepared covers allowed to float on the hot stain for five minutes, then washed in methylic alcohol.
—*Progress.*

CONIUM.—In *The Practitioner*, WHITLA calls attention to the treatment of rectal pain by conium. He directs two ounces of succus conii to be evaporated down to one-tenth its bulk, at a heat below 150° F.; to this is added enough lanolin to make one ounce of a smooth ointment.

This, he recommends for local use in rectal cases characterized by pain and pruritus; such as fissures, fistulas, villous growths, ulcers, and hemorrhoids. These were markedly and quickly relieved by conium after nearly every other known remedy had failed.

The ointment should be freely applied inside the sphincter ani. He attributes the good effects to paralysis of the terminal filaments of the motor nerves distributed to the muscular coat of the bowel. Sensory paralysis is caused at the same time.

In vaginismus and in some painful conditions of the male urethra, relief is obtained from the use of the same ointment; which is also a good lubricant for sounds and catheters.

In fissure, Mr. Cripps recommends the addition to the above formula of ten or twelve grains of the persulphate of iron.

REVIEWS AND BOOK NOTICES.

THEINE IN THE TREATMENT OF NEURALGIA. By THOMAS J. MAYS, M.D., Professor of Diseases of the Chest in the Philadelphia Polyclinic. Published by P. Blakiston, Son & Co., Philadelphia, pp. 84, 12 mo., price, 50 cents.

The quaint binding and beautiful typography attract the eye to this little work. The subject is one of some interest, and if Dr. Mays be not mistaken as to the properties of theine, we have in it a valuable agent in the treatment of certain painful affections. The author cites a number of cases in which he and others made use of theine by injecting it hypodermically in the neighborhood of the affected nerve. Local and peripheral anæsthesia followed, with marked relief from the pain. Presumably, Dr. Mays was satisfied that the diagnosis was correct, but no data are given to show whether the cases were neuralgic, rheumatic, myalgic or of some other sort. All that can be said is that they were painful affections. It is to be regretted also that the author did not submit his new drug to a fair test by giving it alone; as the conjoint administration with such active agents as ammonium chloride and salicylic acid renders it doubtful to which the happy effect is attributable. The pathology of neuralgia is compressed into two little pages; but even in this limited space the author introduces three very questionable statements. Tender spots are not characteristic of all neuralgias, but rather the sequence of inveterate neuralgias; nor do they always mark the superficial exit of affected nerves. Few, if any, neurologists agree with Dr. Mays that "neuralgia is generally of malarial and sometimes of rheumatic origin." This tangle was so well unraveled by Anstie that there is no excuse for again causing the confusion.

The statement which makes trigeminal neuralgia less frequent than six other varieties, when it probably outnumbers all others taken together, must surely be an oversight. We are confirmed in this view by some signs of carelessness in other parts of the work; such as the unintelligible sentence at the top of page 23; the misspelling of

'practising' on page 26; speaking of another case of locomotor ataxia (page 31), when none had been previously mentioned, etc.

The preliminary remarks, informing the reader that tea is derived from Thea Bohea, etc., might well have been omitted; conveying no information but what is well known to any readers the book may have.

The persistent advertising of a chemical manufacturer is also rather cloying.

With these few exceptions we can recommend the book as quite interesting, and if subsequent observations confirm the conclusions reached by Dr. Mays, he will have earned the credit of introducing to the profession an agent of decided value.

THE MEDICAL ANNUAL AND PRACTITIONER'S INDEX, 1888. Published by John Wright & Co., England. 12mo, pp. 619.

THE YEAR-BOOK OF TREATMENT. Published by Lea Bros. & Co., pp. 336, 8vo.

This is a digest of the preceding year's work in therapeutics. American writings are drawn upon liberally. The book is of some value, and is pretty well compiled.

FIRST STEPS IN ELECTRICITY, DESIGNED FOR THE ENTERTAINMENT AND INSTRUCTION OF YOUNG PEOPLE AT HOME AND IN SCHOOL. By CHARLES BARNARD. 16mo, pp. 133. Charles E. Merrill & Co., New York, 1888.

No better little book has yet appeared for popular instruction, and any boy or girl ten years old can perform all the experiments. It is a good volume for the home library, and it will teach electrical knowledge easily and correctly.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. By JAMES TYSON, M.D. Sixth edition. Published by P. Blakiston, Son & Co., Philadelphia. pp. 253, 12mo. Price, \$1.50.

A book which has reached its sixth edition has had its defects and merits too well canvassed to require extended comment. The author has made an earnest effort to bring the work down to the date of publication.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third series, vol. ix. For sale by P. Blakiston, Son & Co., Philadelphia.

This contains 473 pages of historical matter and 200 pages of papers, which number seventeen.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Volume XII. 1887. Published by D. Appleton & Co. Contains nineteen articles.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS, 1887. Vol. II. Printed for the Association.

This volume falls far below the grade of those above named, many of the papers being of but ephemeral interest. The space given to the discussion of Bergeon's method reminds us of that already half forgotten craze. Dr. Atkinson's paper on typhoid fevers simulating remittent is especially commendable.

TRANSACTIONS OF THE ACADEMY OF MEDICINE IN IRELAND. Volume V. Fannin & Co., Grafton St., Dublin, 1887.

Comprises fifty-seven papers, on all branches of medicine.

THE PASSAGE OF AIR AND FÆCES FROM THE URETHRA. By HARRISON CRIPPS. London, J. & A. Churchill. pp. 80, 8vo.

The author has collated no less than sixty-three cases of this rare occurrence, including two in his own practice.

SKELETON NOTES UPON INORGANIC CHEMISTRY, PART I. NON-METALLIC ELEMENTS. BY P. DE P. RICKETTS, PH. D., AND S. H. RUSSELL, E. M. New York, 1887. John Wiley & Sons, 15 Astor Place.

A class-book for students to take notes of lectures, with sufficient outlines of the subjects to guide them.

HEALTH LESSONS, BY JEROME WALKER, M.D. D. Appleton & Co., N. Y., 1887. A text-book from which children may be taught the laws of hygiene.

PREMATURE BALDNESS. Published by A. R. Deacon, St. Louis, 1888. pp. 20.

An anonymous work by an alleged Englishman, who attributes the sup-

posed unusual prevalence of baldness in America to the too frequent use of water to the scalp, and the arts of the hair-dresser.

THE THREE ETHICAL CODES. Published by The Illustrated Medical Journal Co., Detroit, Mich. Price, 50 cents.

PAMPHLETS.

THE PTOMAINES. L. Wolff, M.D., Phila.

THE INCREASE OF CANCER. J. T. Churchill, M. D., London. Price, one shilling.

THE PATHOLOGY OF HAY FEVER. S. S. Bishop, M.D., Chicago.

AN ASEPTIC ATMOSPHERE, ETC. D. Prince, M.D., Jacksonville, Ill.

THE PULLEY METHOD OF ADVANCING THE RECTUS. A. E. Prince, M. D., Jacksonville, Ill.

THE NEURAL AND PSYCHO-NEURAL FACTOR IN GYNAECIAC DISEASE, ETC. C. H. Hughes, M.D., St. Louis.

By a late Australian medical journal we learn that the university is considering the question of granting the degree of M. B. to those who pass the requisite examination, without having attended the lectures and other exercises of the college.

LETTERS TO THE EDITOR.

WHAT NEW YORKERS HAVE TO DRINK ON SUNDAYS.

MESSRS. EDITORS.—Herewith I furnish you a partial list of organic substances found in drinking water by microscopic examination.

EPHRAIM CUTTER, M.D., LL.D.
Broadway & 55th, New York,

MORPHOLOGY OF HYDRANT WATER.

- | | |
|----------------------------|------------------------|
| 1. Acineta tuberosa. | 8. Ankistrodesmus |
| 2. Actinophrys sol. | falcatus. |
| 3. Amœba proteus. | 9. Anurea longispinis. |
| 4. Amœba radiosa. | 10. Anurea monostylus. |
| 5. Amœba verrucosa. | 11. Arcella mitrata. |
| 6. Anabaina subtilaria. | 12. Arcella vulgaris. |
| 7. Anguillula fluvialilis. | 13. Argulus. |

- | | | | |
|-------------------------------|-------------------------------|------------------------------|---------------------------|
| 14. Arthrodasmus convergens. | 63. Fungus, red water. | 112. Sheath of tubel-aria. | 122. Synchoeta. |
| 15. Arthrodasmus divergens. | 64. Gemiasma ver- | 113. Silica. | 123. Synhedra. |
| 16. Astrionella formosa. | 65. Gomphospheria. | 114. Sphaerotheca spores. | 124. Tabellaria. |
| 17. Bacteria. | 66. Gonium. | 115. Spicules of sponge. | 125. Tetraspore. |
| 18. Bosmina. | 67. Gromia. | 116. Spirogyra. | 126. Trachelomonas. |
| 19. Botryococcus. | 68. Humus. | 117. Starch. | 127. Trichodiscus. |
| 20. Branchippus stagnalis. | 69. Hyalosphenia tinctoria. | 118. Staurastrum furcigerum. | 128. Uvella. |
| 21. Castor. | 70. Hydra viridis. | 119. Staurastrum gracile. | 129. Volvox globator. |
| 22. Centropyxis. | 71. Leptothrix. | 120. Staurastrum quadratum. | 130. Volvox, New species. |
| 23. Chetochilis. | 72. Melosira. | 121. Surirella. | 131. Vorticel. |
| 24. Chilomonads. | 73. Meresmopedia. | | 132. Worm fluke. |
| 25. Chlorococcus. | 74. Monactina. | | 133. Worm, two tailed. |
| 26. Chydorus. | 75. Monads. | | 134. Yeast. |
| 27. Chytridium. | 76. Naviculæ. | | |
| 28. Clathrocystis aeruginosa. | 77. Nitzschia. | | |
| 29. Closterium didymotocum. | 78. Nostoc communis. | | |
| 30. Closterium lunula. | 79. Oedogonium. | | |
| 31. Closterium moniliferum. | 80. Oscillatoriaceæ. | | |
| 32. Coelastrum sphericum. | 81. Ovaries of entomotraca. | | |
| 33. Cosmarium binoculatum. | 82. Pandorina morum. | | |
| 34. Cyclops quadricornis. | 83. Paramesium aurelium. | | |
| 35. Cyphroderia ampulla. | 84. Pediastrum boryanum. | | |
| 36. Cypris tristriata. | 85. Pediastrum incisum. | | |
| 37. Daphnia pulex. | 86. Pediastrum perforatum. | | |
| 38. Diaptomas. New species. | 87. Pediastrum perustum. | | |
| 39. Diaptomas castor. | 88. Pediastrum quadratum. | | |
| 40. Diatoma vulgaris. | 89. Pelomyxa. | | |
| 41. Diffugia cratera. | 90. Penium. | | |
| 42. Diffugia globosa. | 91. Peredinium cancellabrum. | | |
| 43. Dinobryina sertularia. | 92. Peredinium cinctum. | | |
| 44. Dinoccharis pocillum. | 93. Plagiophrys. | | |
| 45. Dirt. | 94. Platiptera polyarthra. | | |
| 46. Eggs of bryozoa. | 95. Pleurosigma angulatum. | | |
| 47. Eggs of entomotraca. | 96. Plumetella. | | |
| 48. Eggs of plumatella. | 97. Pollen of pine. | | |
| 49. Eggs of polyp. | 98. Polycoccus. | | |
| 50. Enchyelis pupa. | 99. Polyhedra tetraetica. | | |
| 51. Eosphora aurita. | 100. Polyhedra triangularis. | | |
| 52. Epithelia, animal. | 101. Polyphema. | | |
| 53. Epithelia, vegetable. | 102. Protococcus. | | |
| 54. Euastrum. | 103. Radiophrys alba. | | |
| 55. Euglenia viridis. | 104. Raphidium duplex. | | |
| 56. Euglypha. | 105. Rotifer ascus. | | |
| 57. Eurycerus lamellatus. | 106. Rotifer vulgaris. | | |
| 58. Exuvia of some insect. | 107. Saprolegnia. | | |
| 59. Feather barbs. | 108. Scenedusmus acutus. | | |
| 60. Feathers of butterfly. | 109. Scenedusmus obliquus. | | |
| 61. Floscularia. | 110. Scenedusmus obtusum. | | |
| 62. Fragillaria. | 111. Scenedusmus quadricauda. | | |

[This reveals a state of affairs that fills the bosoms of the friends of temperance with dire foreboding. Apparently, the stuff furnished by the authorities, and purporting to be Croton water, contains everything under the sun except H₂O. We now understand why Jacob Sharp drank milk.—Ed.]

NASAL POLYPI.

Editors MEDICAL TIMES:

If it is not asking too much, will you please give me your treatment for nasal polypi by the use of astringents.

Molino, Mo.

J. J. WILSON.

[In a few cases I have injected a little chromic acid into mucous polypi; in one case I used a saturated solution of tannic acid, and in others carbolic acid. I think the last-named gave the most satisfactory results. From the use of astringents applied to the surface of the polypi, I have never obtained satisfactory results.—w. f. w.]

BRONCHIAL HEMORRHAGE FOLLOWING SEXUAL INTERCOURSE.

Editors MEDICAL TIMES:

I have a patient who has at four different times within the last two months expectorated pure blood from the lungs, in quantity from a teaspoonful to a tablespoonful. Each time it has occurred *immediately* after having intercourse with her husband, and seems to be as a result. She is in good health, menses regular, the mother of several children, the youngest about two years of age. She is about thirty-six years old, and has excellent family history; no hereditary disease. Have you ever

known of such a case? Is there any connection between the cohabitation and the hemorrhage? J. W. C.

[We have never heard of a similar occurrence. There are some facts, however, which may afford an explanation of this singular case. While attending a gentleman who had hemiplegia following apoplexy, he informed us that the first time he had intercourse after the stroke, at the moment of the orgasm the whole of the paralyzed side became intensely rigid and painful, giving him such a fright that it was long before he attempted the act again.

In another case a man who had performed the sexual act during the day, informed us that his wife saw his face become intensely congested, almost purple in fact, and he feared that apoplexy might result.

If a similar engorgement of the lungs occur during the orgasm, it would not be surprising if a little bronchial hemorrhage should occur, in a person who is liable to such hemorrhages from other causes. If the wife did not participate in the orgasm, this explanation would, of course, not be applicable.—W. F. W.]

MISCELLANY.

ODE TO PROF. D. HAYES AGNEW, M. D., LL.D., on the Fiftieth Anniversary of his Graduation in Medicine, April 6, 1888.

[The confusion, incident to some changes in the management of this Journal, caused the omission of this beautiful ode from our last number. Its reading was highly appreciated by the distinguished guest of the evening and his friends, and the sentiment of the poem found a response in every heart.—EDS. P. M. T.]

I.

The winter's whiteness glorifies thy brow,
The summer sunshine lingers on thy face,
Upon thy heart the years have left no trace,
Warm as it kindled first, we feel it now.
Here age and youth alike before thee bow,
Each rivals each with every kindly art,
To do such honor to thy head and heart
As friendly words and one brief hour allow.
Thy constant home is in the loving heart,
Still loved the most by those who know
thee best,
As if the Truth had claimed thee for her
own,

Thy honest soul disdains each doubtful art.
By such as thou, the world is richly blest,
For good men rise from high example
shown.

II.

There are who stand aloft before men's eyes,
Like crumbling castles better seen afar,
Whose grandeur oft a nearer view would
mar;
Such dire defect in seeming greatness lies.
The truly great beget no sad surprise:
Humble art thou and gracious to thy kind;
No loud pretence betrays the little mind,
No affectation weakness underlies.
Hippocrates and Galen—could they rise
From honored tombs and be with us to-day,
With kindred souls who speak the ages
through,
The master-minds, the great, the good, the wise—
Glad would they crown thee with im-
mortal bay,
Beloved by all, because to all so true!

III.

Transcendent Master in thy noble art!
In mortal throes and danger imminent
Thy skilled hand needs no other precedent.
Who, like to thee, can bid the pulses start,
Tears cease to flow and wasting fear depart?
When Garfield fell and horror filled the
land,
A Nation breathed when thou didst show
thy hand,
If not to heal, at least to soothe the smart.
Thou, too, art honored as a Teacher great!
Benign, as on a lofty mission bent,
No secret does thy candid bosom hold;
But free to all who on thy wisdom wait,
Athirst for knowledge and with high intent,
Thou dost the riches of thy lore unfold.

IV.

Though grudging Fate prescribe a narrow
bound,
Though Genius does not kindle with its
flame,
Or grant to scale the starry height of fame
To all; yet from thy higher ground,
How ready was thy big heart ever found,
At every lesser brother's call in need,
Giving on equal terms the kindest heed,
Though to thyself no vantage should re-
dound!
No empty praises do we sing to thee:
Could weary hospitals thy goodness tell,
Could countless homes thy benefits unfold,
Glad from the skies would Love and Sympathy
With Earth's too sordid children straight-
way dwell,
Drawn by the story, if the half were told.

V.

In vain do these too hurried numbers tell
The peaceful triumphs of thy fifty years;
Vain our applause, vain friendship's holy
tears
That all unbidden from our eyes upwell—

While lovingly we on thy virtues dwell—
 Unless to us thy grand achievements give
 Some quick'ning energy like thee to live,
 And like to thee in living worth excel.
 The evening shadows lengthen o'er thy way,
 Around thee falls a mild and mellow light,
 Surely from care thou needest some release:
 Well mayst thou rest while yet the lingering ray
 Of sunset splendor waits upon the night,
 And earth and heaven and thy own soul
 say, "Peace!"

THOMAS WISTAR.

THREE WISE MEN.—A bottle recently picked up on the coast of Ushant contained the following, supposed to be part of the log kept by the Three Wise Men of Gotham:

"I have an idea," said the Professor of the Culinary Art; whereupon he was earnestly urged to hold on to it, and not let it escape; as any sign of ideation on his part had heretofore been nonexistent. Accordingly, at the next meal the professor presented, as the outcome of the wandering Thought which had strayed into his cranium, his dishes in a condition of absolute plainness; while the salt, pepper and other condiments were each served in separate courses. "Behold," said the Wise One, "we will eat first our meat and then swallow the pepper."

But they liked it not. Then the Second Wise One, the Purveyor of Amusements, proclaimed himself the possessor of a scintilla from the jewel of thought; but as he was always making such claims, which invariably turned out to be unsuccessful attempts to adapt bad notions of others to theatrical matters, nobody listened to him. Nevertheless he persisted, and the next play showed that all the comedian's parts were cut out from the body of the play and placed in a scene by themselves at the end. "Behold," said the Purveyor, "She who cometh to weep may indulge in her grief undisturbed by the antics of the low comedian and the soubrette; while he who wishes to laugh may go out and eat cloves till the farce begins, and will not be tempted to grow hilarious at the wrong time." But they liked it not; for both sad and gay united in a Yawn.

The Third Wise One said never a word. But when next his journal appeared, behold, he had collected to-

gether all the ancient and well moulded chestnuts which had long won celebrity as alleged jokes, and had arranged them in a special department; which out of pity for the feeble intellects of his readers he did label with the word "Fun." But whether they did like it or no we cannot say; as no reader has yet been known to advance thus far into his book without being overcome with somnolence.

For the cough of Emphysema and chronic bronchitis:

R. Picis liq. purif.....gr. xxx
 Pulv. ipecac. comp.....gr. xlv
 Pulv. benzoin.....q. s.
 M. et in pil. xl. div.
 S.—Two to six daily.

—Gueneau de Mussy.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE TWO WEEKS ENDED APRIL 21, 1888.

HUTTON, W. H. H., SURGEON.—To proceed to Biloxi, Miss., on special duty. April 21, 1888.

LONG, W. H., SURGEON.—Granted leave of absence for fourteen days. April 21, 1888.

SAWTELLE, H. W., SURGEON.—Granted leave of absence for seven days. April 21, 1888.

URQUHART, F. M., PASSED ASST. SURGEON.—Granted leave of absence for seven days. April 10, 1888. To assume temporary charge of Cape Charles Quarantine Station. April 17, 1888.

WHITE, J. K., PASSED ASST. SURGEON.—Relieved from quarantine duties at Sapelo Station. April 21, 1888.

WILLIAMS, L. L., PASSED ASST. SURGEON.—Relieved from duty at Marine Hospital, Boston, Mass., to assume charge of Cape Charles Quarantine Station. April 17, 1888.

BRATTON, W. D., PASSED ASST. SURGEON.—Relieved from duty at Marine Hospital, San Francisco, Cal., detailed as medical officer, Revenue Steamer "Bear," during summer cruise. April 19, 1888.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING MAY 5, 1888.

MEDICAL INSPECTOR A. S. OBERLY.—Granted six months leave with permission to visit Europe.

MEDICAL DIRECTOR W. T. HORD, AND SURGEON T. WOOLVERTON.—Ordered as delegates to represent the Medical Department of the Navy at the meeting of the American Medical Association, May 3th, at Cincinnati, Ohio.

SURGEON GEORGE P. BRADLEY.—Ordered to Navy Yard, Brooklyn, N. Y., without delay.

PHILADELPHIA MEDICAL TIMES.

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JUNE 1, 1888.

VOL. XVIII

CLINICAL LECTURE

OF PROF. J. M. DACOSTA, M.D.

At the Pennsylvania Hospital, Phila.

REPEATED INTESTINAL HEMORRHAGES
AND PERIOSTITIS AS COMPLICA-
TIONS OF TYPHOID FEVER.

GENTLEMEN: This man has been brought into the amphitheatre in order to show you the success of the treatment; and also for the purpose of showing you a new feature which has recently developed; since you last saw him. His name is Val. F., he is 35 years of age, and was admitted a month ago, with symptoms indicating a serious attack of typhoid fever. When he was first brought before you two weeks ago he was suffering with intestinal hemorrhages. I gave him fluid extract of ergot in doses of half a drachm every two hours, with opium suppositories in order to check peristaltic movements of the bowels. He also had his diet carefully regulated, the amount of milk was reduced, and he was sustained principally with beef tea. As the hemorrhages were soon stopped, the ergot was discontinued and we substituted for it a mineral acid, (acid sulphuric dilute) $\text{m} \times$ every three hours. Stimulants also were given, in small doses frequently repeated, during his period of greatest depression, when the axill-

ary temperature fell to 97° ; but since he had reacted we gave the stimulant (six ounces daily) in milk, in larger dose, but less often.

Under this treatment he did very well for over a week, when a new and somewhat rare feature appeared; he developed a periostitis over the left tibia, at the middle of its interior surface, the spot of swelling being about three inches in length by one and one-half inches broad; it was very tender to the touch. Under the influence of iodine applications, this swelling has gone to a very marked extent. Nowhere else has there been a periostitis. Besides the local application, we gave him internally, Lugol's solution, one drop every four hours. We would like to have given him more, but his stomach would not bear it; in fact even this dose had to be suspended after a day or two.

You will ask, is this complication a frequent one? I have already said that it is a very rare occurrence, but in this connection I want to put you on the look out for this complication after typhoid fever. Not only may you have periostitis of various bones, but the larynx may be invaded, a perichondritis may occur, followed by destruction of some of the cartilages. When periostitis occurs in one of the long bones, it generally terminates in recovery, but

it may leave a permanent local thickening, making a sort of node.

This periostitis of typhoid fever never occurs during the height of the disease, but only as it draws near its end, that is, more towards convalescence. Indeed, it sometimes appears more as a sequel than as one of the manifestations of the acute malady. Here it happened as a complication of a long protracted case owing, perhaps, chiefly to the vitiated condition of the blood, caused by the hemorrhages and other complications.

The case is now being treated by quinine and stimulants. I would like to have given him the solution of iodine a little longer but he is unable to take it. The amount of stimulant will be gradually reduced as soon as he can bear it; he is doing quite well at present and I have no hesitation in saying that I think that he will get well.

[The patient was taken back to the ward and during the afternoon had a severe intestinal hemorrhage; in three evacuations from the bowels, the nurse reported that he discharged nearly two quarts of blood. He appeared to be moribund, in collapse, with a temperature of 97°; face cold and forehead covered with perspiration, pulse almost imperceptible, but the application of heat to the extremities, with stimulants each half hour, and the administration of ergot (every three hours) caused a reaction, and he gradually revived. There were no more hemorrhages, and the patient became finally convalescent.

REP.]

Case II.—Repeated attacks of Hemiplegia due to Cerebral Thrombosis.—The patient just brought in is a sailor, 30 years of age, who was admitted on the 13th of this month into the men's medical ward, with right hemiplegia. The history as obtained from him was, that he had been in good health until four days before admission, when as he was rising from a chair he suddenly and without any premonitory symptoms lost all power in his right leg and arm and fell to the ground. He did not, however, lose consciousness. In the course of a few hours he regained power sufficiently to walk and to move the arm, though weakness continued for several days. He did not have headache

nor any cerebral symptoms apparently, but he did have pain in the abdominal region whenever he moved his body. On the morning of the day of admission into the hospital, as he was getting out of his bunk, the right leg and arm again became suddenly paralyzed. Like the preceding one, this attack was not accompanied by loss of consciousness. When he was seen shortly after coming in he was found to be rather stupid and dull; but we cannot lay much stress upon this, because he afterwards said that he was drowsy and stupid before the attack, and probably it is his normal condition. There was found complete motor paralysis of the right leg, with loss of power in the arm muscles; the grasp of the right hand was weak, and he could only with difficulty move the arm upon the bed. His face was not paralyzed, and there was no impairment of sensation anywhere. The paralyzed muscles responded well to both galvanic and faradic currents. The patella reflex of left side was normal, while in the right leg it was much increased. The ankle-clonus was detected. Temperature and respiration were not increased; the pulse was weak, not accelerated; the pupils were equal and responded to the light; the tongue was coated, bowels constipated. His urine was acid in reaction, of specific gravity 1015, and free from albumen and sugar.

To this history I will merely add, that since his admission he has been rational, but is disposed to drowsiness and sleeps most of the time. He has had no headache, and he still complains of pains in his abdomen upon moving his body or turning over in bed.

The appearance of the patient as he lies in bed is that of health; he is well nourished and has an intelligent face. Upon his making attempts at motion of his body you notice the immobility of the right lower extremity, and the impaired movements of the arm; his grasp is still feeble. Upon examination of his heart, I find a feeble first sound, corresponding with a feeble pulse, but there are no endocardial murmurs. There is no evidence of atheroma of the arterial system, no impairment of the special senses or disorder of the mental faculties, and, as you have heard, no evidence of kidney disorder. What

then is the nature and seat of the lesion or lesions producing these marked symptoms?

In considering the nature of this case several causes might be suggested. Coming on suddenly as a stroke of paralysis, apoplexy would present itself to your mind; but this explanation is rendered improbable by the right hemiplegia without loss of consciousness; by the transitory character of the paralysis; by the absence of mental symptoms; and by want of evidence of any disease of the walls of the arteries. There is an entire want of any history of a predisposing cause (such as profound emotion); premonitory symptoms also were absent. Let me add further that no elevation of temperature has been noted since he came under our care.

The character of the paralysis, its sudden onset while in a condition of apparent health, with preservation of the intelligence, and with rapid return of the power in the affected limbs, would suggest embolism of some branch or branches of the left middle cerebral artery. The objection to this view is that there is no evidence of disease of the heart to contribute the vegetations torn off from the valves, which form emboli when carried into the smaller arteries.

The opinion that I have formed of this case is that the process is a local one in the brain, and is due to coagulation occurring within the vessels, owing to weakness of the circulation. The feeble first sound of the heart, the poor pulse, with possibly too little to eat upon shipboard, have favored a slowing of the circulation which would directly lead to local coagulation of blood within the walls of the vessels.

Case III.—Gastric Ulcer with repeated attacks of Hæmatemesis.—The next case I think will interest you therapeutically. His name is H. C., a Frenchman by birth, about 36 years of age. He gives a long history of gastric disorder; in fact, I find that he was under treatment in this hospital seven years ago, when he had hemorrhages from the stomach. He has not only an old history of dyspepsia, but it seems that this complaint—if we can use the word complaint as applied to what is

often merely an aggregation of individual symptoms—is hereditary in his family. His mother suffered for many years with it, and finally died with gastric disorder. The patient himself began to be dyspeptic when about fifteen years of age. He then, it seems, had a severe attack, from which he recovered, and did not suffer again from it until shortly before the date of his first admission. At that time, after a few days of pain and dyspepsia, he had an attack of vomiting of blood, and in his intestinal discharges was a considerable quantity of coffee-colored blood; there was evidently a gastric hemorrhage. Chilly sensations, prostration and gastric tenderness, accompanied this seizure, in which he lost a large quantity of blood, both by vomit and stool. He estimates that he lost nearly four quarts of blood at this time. When he came here the next day, he was very anemic; his liver was slightly enlarged. There was no albumen in the urine. There was a systolic basic murmur in the heart. Examination of the lungs revealed a slight impairment of the percussion note at the left apex, but without râles or other evidences of congestion. The chief difficulty was with his digestive organs. No tumor was discovered in the abdomen; but a spot of tenderness above and to the right of the umbilicus was detected. It was found that he had been out of work and nearly starved, and had been shoveling snow on the day before the hemorrhage occurred. He rapidly recovered, and returned to France, where he was well for about a month or six weeks, when he had another attack of hæmatemesis, in which he lost about two pints of blood, according to his statement. Following this, he had constant indigestion, with flatulence and pain in the stomach. About once a month he had attacks of vomiting, and would often vomit blood at these times. Three years ago the symptoms became more marked, vomiting increased in frequency, and he had violent epigastric pain, and he often vomited blood. Treatment being of no avail, he decided to return here, in the hope of improvement. He reached this city November 2, and during the time up to the date of his admission, December 17, he was

able to work only two days. The pain and vomiting were almost constant, and he emaciated rapidly. He also had a pain in his back, in the dorsal region of the spine.

When he was admitted he was very anemic and very emaciated; he was writhing with pain in his abdomen, radiating from a center just above the umbilicus. He vomited a large quantity of watery fluid, covered with whitish, greasy froth. After he came in, this was followed by vomiting of blood, in small hemorrhages two or three times daily for a week after his admission. No albumen was ever found in the urine. The blood that was vomited was at first dark-red, afterwards it was like coffee-grounds.

His treatment was symptomatic; he was put in bed upon a strict milk diet, and a pill of oxide of silver (gr. $\frac{1}{4}$) and of opium (gr. $\frac{1}{4}$) was given four times a day. His bowels were kept open by pills of belladonna, nux vomica and compound extract of colocynth, not given oftener than was strictly necessary.

Now, gentlemen, this man was immensely benefitted by the treatment; indeed, had you seen him when he came in, you would not now recognize him as the same man.

He is still slightly anemic, but not to be compared with the condition we found him in when he was admitted. His tongue is pale and clean, as it has been throughout; it is less anemic-looking than upon his admission. He says he is hungry all the time. We have allowed him, in addition to his milk-diet, soft-boiled eggs, and milk toast. The milk did not constipate; his bowels are regular. At first he had a great deal of pain, and everything he took into his stomach gave pain and caused vomiting, but it is no longer the case: there is no more vomiting. There is still some tenderness in the epigastric region, localized in a spot a little to the right of the median line, above the umbilicus. The pain in his back, at a point corresponding to the epigastric pain, to which he called our attention previously, has disappeared. As regards the viscera: the liver dulness is normal; the splenic dulness barely extends to the margin of the ribs. There is no

disease of spleen or liver, nor has he ever given any history of malarial attacks, which, looked upon as possible causes of hemorrhages from the stomach, are important to determine. The heart-sounds are rather peculiar; the first is quite dull, short and indistinct, the second is more marked. The heart is evidently flabby. There is a faint systolic base murmur to the left of the sternum, due to the state of the blood.

What has been the matter with this man? I am sure that you recognize this case as one of gastric ulceration. It is a typical case. When you take into account his age—for he is still a youngish man—the long history of dyspepsia, with pain after eating, frequent vomiting and repeated gastric hemorrhages and local tenderness upon pressure, the case is very clear, especially when to this you add the negative evidence of the absence of any tumor or induration. Add to this the marked anemia partly due to the hemorrhages and partly independent of them; when you take all this into account, it seems to me impossible to come to any other conclusion than that of gastric ulcer. Certain it is that there is nothing in the liver, spleen or stomach which would account for the hemorrhage on any other ground. The pain increased upon taking food, the repeated hemorrhages and emaciation are in favor of this view; but the main point is the effect of the treatment, which I confess is better than I expected upon beginning it. It has been a remarkable success. Under a rigid diet, with strict attention to remaining at rest in a recumbent posture, which was here most strenuously enforced; keeping the bowels at rest with small doses of opium, combined with the local effects of the salts of silver, the results have been remarkable. The man is being cured, and I think there is every reason to believe that he will leave the hospital a well man.

But I think that this was not the first ulcer, although the notes are not conclusive upon this point. If he had an ulcer when he was here before, I think it possible that he may have another ulcer after leaving the hospital. Shall we now increase this man's diet? I would do so only with great care. I

should be inclined to try some underdone meat finely chopped up, with five grains of pepsin, at each time. Soft milk-toast might be given sparingly.

The silver has been kept up for three weeks. We must look out that we do not overdo the matter; you know the salts of silver may cause the skin to turn blue, although the oxide is less likely to do so than the nitrate. When administering these salts you should examine the mouth, for the first sign of saturation is seen in a blue line upon the gums. We do not find it here and are perfectly safe in continuing the remedy.

The only thing now remaining to be done is to give iron for the anemia, but it must be given so as not to irritate the stomach. Let him take;

R Ferri et ammonii citratis...gr. v
Glycerini.....℥ xl
Aqua.....℥ xv M.

for each dose, well diluted with water, two hours after his meals, twice a day.

THE CAUSES AND SIGNIFICANCE OF HEMORRHAGE FROM THE GENITAL CANAL.

A Clinical Lecture delivered at the Medico-Chirurgical Hospital, April 3, 1888.

BY E. E. MONTGOMERY, M.D.,

Professor of Didactic and Clinical Gynecology, Obstetrician to the Philadelphia Hospital, and Vice-President of the American Association of Obstetricians and Gynecologists.

(Reported for the PHILADELPHIA MEDICAL TIMES.)

GENTLEMEN.—I bring before you a patient with the following history: Mrs. P., aged 32; has had five pregnancies, three at full term, with four children, and two miscarriages; her oldest child is aged 11 years. The last delivery was the twin pregnancy, and occurred four years ago. She has not felt well since her first pregnancy, during which she miscarried. From that period she has suffered with pain in back, uterus and over the bladder, the latter especially during micturition. She has frequent attacks of severe headache and nausea. During her whole menstrual life the flow has been quite free, lasting generally about a week; but for the last year this flow has been greatly increased, amounting at times

to a hemorrhage, and occurring every three weeks.

This symptom—hemorrhage—is one to which you will frequently have your attention called in the treatment of diseases of the female genital tract, and is one whose importance you can not too highly estimate. The significance of hemorrhage varies greatly according to its relation to the menstrual flow and the period of life at which it occurs. Hemorrhage occurring near or after the climacteric is especially significant, and demands a most careful examination as to its cause. It may begin several years after the cessation of the menstrual flow, as a slight, bloody discharge, occurring at irregular intervals, and subsequently becoming continuous. The patient may or may not suffer from severe pain. She soon presents a pale waxy or yellowish appearance, and there is progressive emaciation. With such a picture, a vaginal examination reveals the cervix excavated, ragged, or presenting an extensive growth, filling up the vagina, readily broken down by the slightest pressure, and bleeding freely. This condition you readily recognize as malignant disease. While it is true that malignant disease most frequently makes its appearance at or near the climacteric, it does occur at any time after the twentieth year. Not every discharge of blood following the menopause is indicative of cancer. Women of intemperate habits or of a gouty tendency, who live high, are subject to attacks of vaginitis, in which hemorrhage or bloody discharge may take place from the enlarged and inflamed vaginal papillæ. The slightest quantity of bloody discharge is sufficient to awaken the suspicion in her mind that malignant disease is developing. The restriction of the diet and the cessation of the use of alcohol is sufficient, unaided, to bring about a cure. It should not be forgotten that hemorrhage from the uterus may result from engorgement of the portal circulation from liver or heart disease. Such cases demonstrate the necessity of being able to see through other glasses than those of the mere specialist. Local treatment would be of no avail.

Not unfrequently after riding, walking,

or coition, the patient will notice a slight show. She visits the physician in great trepidation fearing that some serious disorder is present; an examination by speculum discloses a uterus which presents no abnormal physical signs. The physician, possibly after repeated examinations, continues unable to ascertain the cause of the discharge and loses the confidence of his patient. The difficulty has been that he directed his attention to the uterus when the bleeding has arisen from papillæ, enlarged and abraded, in the region of the vestibule and orifice of the urethra.

During the period of active menstrual life, hemorrhage in the form of either menorrhagia or metrorrhagia occurs most frequently as the result of the presence of interstitial or submucous myomata. The flow is likely to be at times very severe, amounting to a hemorrhage. The patient may become exsanguinated and her life endangered by it. The flow is very free, increased by locomotion and may continue for a length of time. It is likely to be accompanied by expulsive pains or cramps arising from the efforts upon the part of the uterus to extrude the growth. The flow may arise also from endometritis of that form in which the papillæ have become enlarged, known as villous degeneration of the endometrium. Local congestions of the endometrium and resulting hemorrhage may take place from a mass of cellulitis in one or other broad ligament; interfering with the venous circulation and thus producing a local or partial endometritis.

A frequent cause of hemorrhage, as in that of the case before us, is *laceration of the cervix*. When the laceration is extensive and bilateral, the heavy uterus resting upon the vagina leads to wide eversion of the lips, the posterior being turned backward into the posterior fornix, the anterior forward in the axis of the vagina. The fissures become filled up with tissue in which the fibrous element predominates, and the whole surface of the cervix covered with granulations. These are injured with the movements of the body, and during coition oft times give rise to severe hemorrhage. The tear also has an influence in producing hemorrhage from

the body of the organ. Its occurrence prevents the completion of the process of involution so that the uterus remains larger than normal; it favors the development of endometritis to a greater or less extent, and of the chronic catarrh and chronic metritis which are so frequently accompaniments of laceration. The catarrhal mucous membrane becomes swollen, loses its epithelium, the papillæ become enlarged, the capillaries dilated, and increased and prolonged menstrual flow becomes a marked symptom. At times, this condition is so bad that the patient suffers almost constantly from a bloody discharge. This chain of development very aptly describes the progress of the disease in the patient I have just had before you. The immediate performance of trachelorrhaphy in such a condition would not be followed with satisfactory results. The operation must be preceded by treatment directed to the relief of the diseased lining membrane.

Again, hemorrhage, in the form of menorrhagia, may occur, although most careful examination reveals no disease of uterus or vagina. It is usually preceded with pain in one or both iliac regions. This pain in many cases continues during the intervals of menstruation and completely subsides while the flow continues. In these cases a careful examination discloses chronic disease of the ovaries; one or both organs, more frequently the left, will be found enlarged, prolapsed and exceedingly tender. I can best illustrate the condition by relating the history of a case that has recently been under my care. Mrs. L., aged twenty-six years, mother of one child, has been suffering since its birth with pain in either iliac region. This pain was greatly aggravated just prior to the menstrual periods. The flow was very free, lasting ten days to two weeks. As a result of the prolonged distress, her mental condition became bad, so that she was in fear of some impending danger, whenever she was alone. This became so aggravated within the last six months before entering my private hospital, that she would not have her attendant out of her sight day or night. She was despondent, nervous, regurgitating her food and becoming rapidly emaciated.

The uterus was retroverted, ovaries prolapsed, enlarged and bound down by adhesions in Douglas's pouch. Pressure in the posterior vaginal fornix gave rise to agonizing pain, a pain similar to what she experienced during intercourse.

Local applications, counter-irritation, vaginal tampons, rest, change of scene, and constitutional treatment had been tried without avail. After over a year of this treatment, I succeeded in procuring her consent and that of her family to an operation for the removal of her appendages. This was done at my private hospital, Dec. 29, 1887. The subsequent result has been all that the most sanguine could have wished. The patient from being a helpless, querulous woman, a source of unhappiness to herself and others, is now well, able to take pleasure in lightening the burdens of others. The reflex phenomena are exceedingly frequent in this form of trouble. Thus, in some, the ovarian pain is not near so severe as the pain felt in the corresponding mamma. Young girls, with the advent of menstruation, are frequently the victims of menorrhagia caused by ovarian hyperæmia. This, under judicious care, may be overcome, or it passes into chronic or cystic disease, from which the patient is not relieved until the organs themselves are sacrificed.

By these remarks upon the discharge of blood from the genital tract, I have endeavored to impress you with the importance of this symptom, and the need of the greatest care in obtaining a correct idea of its cause, before you are ready to enter upon a course of treatment.

TRANSLATIONS.

PHOSPHORUS IN RICKETS.—Comby details the results of the above treatment in forty cases, ranging in age from ten months to three years. The vehicle employed was cod liver oil, to which was added phosphorus to the amount of ten centigrammes per litre. From one to four teaspoonfuls of this were given daily. The duration of the treatment was from three to twelve months. Only well-marked cases were submitted to this treatment.

In general, the drug was well supported; sometimes it had to be discontinued for some days. Diarrhoea was observed in two or three cases, but he is not sure that the phosphorus caused it. No other accidents occurred, except such as are attributable to the cod liver oil.

The method has not proved dangerous, and Schwetchen's mortality of 19 per cent. cannot in justice be attributed to the phosphorus. Wishing to compare the old treatment by salt baths with the new, he has observed forty cases treated during three months by salt baths. Some children took also pure cod liver oil, others combined it with phosphorus. The results of the second series were no mortality, two complete cures, thirty-four much improved, and two stationary. These statistics serve to establish the superiority of salt baths over phosphorus. Indeed the reputation which phosphorus has obtained is due to its employment in those mild cases where deformities have not taken place, and which tend to get well under proper hygienic treatment. In severe cases where all remedies fail, and irremediable deformities have taken place phosphorus is powerless to relieve. He concludes therefore, that the specific treatment of rickets is not an advance, since it is shown to be inferior to the traditional treatment of rickets. It is not an infectious or toxic disease, and therefore cannot have a specific remedy, and being a result of a profound disturbance of nutrition, must be met by prophylactic and hygienic measures. —*Revue de Thérapeutiq.*

EPILEPSY TREATED BY HOT IRON.—M. Fere presents a patient in whom, as well as in seven others, he had caused a marked diminution of spasms by the repeated application of the hot iron. These patients all present a certain degree of hemiplegia, due to a cerebral affection which had preceded the convulsive manifestations. —*Ibid.*

ARTIFICIAL REPRESSION OF THE MENSES IN CHLOROSIS.—Loewenthal, of Lausanne, records twenty-three cases in which the artificial repression of the menses has been very advantageous in this disease. The method employed

consisted in injections of warm water of about 49°, with absolute rest in bed. In some cases iced water was employed in preference to warm. Eighteen cases were chlorotic, and *all* were cured rapidly without other treatment than from three to five menstrual suppressions. Five were grave cases of hysteria, one of whom showed marked improvement, while three other cases were convalescent from exhausting illness, and in them the convalescence was much shortened. No bad effects were noticed. —*Revue de Thérapeutique*.

CANDAHOL AS A LOCAL ANÆSTHETIC.—Dr. Phouchkine recommends candahol, a hydrocarbon distilled from the American naphtha, as a local anæsthetic. It is a transparent liquid insoluble in water or alcohol, and produces complete anæsthesia in 60 seconds. It is available for the removal of ingrowing nails, in whitlow, the enucleation of cysts. Another advantage of candahol is its moderate price.

URETHRECTOMY.—Resection of a portion of the urethra, followed by reunion of the divided ends, is a fine operation, for which the indications are found in contractions with fibrous induration, peri-urethral, surrounding the urethra like a ring, with a hard perineal mass, etc. Of nine cases operated upon by POUCHET (of Lyons) none died, nor did any grave accident ensue. In three cases he obtained complete union by first intention. Many months afterwards, the result was found to be perfect; the perineum showed no trace of induration; a No. 20 bougie passed easily. In the other six cases, the union was by granulation, and they remained in the hospital many weeks. The definite result of this operation is superior to that of external urethrotomy; especially when union by first intention is obtained. The calibre of the canal is maintained, and months after, the site of the stricture can scarcely be detected.

When the union of the divided sections of the canal has not been possible, a new channel has been formed by granulation. The cure then demands many weeks, and the daily use of the catheter is necessary to preserve the patency of the canal.

In both classes the urethra performs its functions properly; coition and micturition being normal. —*Ibid*.

VERTIGO IN SMOKERS.—DeCaisnes says, that in 63 subjects, from 29 to 66 years of age, he had observed that forty-nine were between the ages of 50 to 66 years. More than half presented digestive troubles with alternation of constipation and diarrhœa, some dyspepsia, an increased urinary secretion, more or less abundant sweats, insomnia, palpitation; a third had intermittence of the pulse, angina granulosa; some had emphysema, amblyopia, and some spitting of blood.

Thirty-seven of his observations related to those who smoke on an empty stomach, in whom vertigo occurred during the morning. The occurrences of vertigo coincided in one third of the cases with the suppression of profuse sweats and with marked diminution of the urinary secretion. All physiologists can interpret this phenomenon. Sometimes the symptoms of the vertigo of smokers have been confounded with cerebral congestion and even heart-disease. Indeed eight of his subjects had been erroneously treated for these affections and subjected to bleeding, purgatives, digitalis, etc., during some time, with great aggravation of their condition. He is forced to believe that one of the cases he is reporting owes his death to an ill-advised bleeding. It is necessary to remember that in nicotine poisoning there is at first a contraction of the vessels, which produces the vertigo; then a reaction, the same organs dilating; this is the period of congestion. The three observations which he has made, make him insist upon a differentiation of the signs which indicate cerebral congestion and lesions of the heart from smoker's vertigo. A careful physician would not deceive himself.

The treatment consisted in the abandonment of the habit, laxatives, tepid baths, magnesia and simple bitters. Twenty-eight times hypodermic injections of ether, stopped the attacks in from five to six minutes. In the thirty-seven subjects who smoked while fasting, thirty-three have been relieved of the vertigo by not smoking until after eating.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

SURGICAL CLINIC HELD BY J. M. BARTON, M.D.

Reported for the MEDICAL TIMES.

EXCISION OF FOUR RIBS FOR EMPYEMA.

THIS patient, Joseph F., aged 25 years, had suffered for four years with chronic pleurisy when he was first admitted to this hospital in June, '87. At that time the left side of his chest was filled with fluid, the heart was pushed far over to the right, the respiration was greatly embarrassed and his life was in immediate danger. Under my direction and in my presence his chest was tapped with an aspirator needle by the resident physician, and six quarts of sero-purulent fluid removed, and subsequently as much more. As the fluid rapidly re-accumulated, a permanent opening between the sixth and seventh ribs was made in July, and a drainage-tube inserted.

As the lung failed to expand and the abscess cavity to diminish in size, I proposed, then, to excise some of the ribs, but as his general health had greatly improved and he was able to be out of the hospital he refused, and left the institution several months ago.

Now he returns to us; during these six months there has been a daily discharge of one or two ounces of pus from this opening between the seventh and eighth ribs. On several occasions he has had mild attacks of blood poisoning as shown by chills, profuse sweating and high temperatures.

He has gradually lost flesh and strength, but no disease of the kidneys or of the other lung was detected.

This pus cavity fails to close, owing to the fact that the left lung was for several years pushed firmly into the upper part of the chest by the pleural effusion, and that it has been fastened there by firm adhesions, so that when the fluid was removed it was unable to expand; the chest walls have slightly sunken in, but the rigidity of the ribs prevents further collapse; quite a large abscess cavity still remains; this is too large for nature to fill up by granulations; it holds just as much fluid now as it did six months ago.

I will in this case remove sections of several of the ribs; their divided ends will approach each other, shortening the ribs and permitting them to close down upon the abscess cavity, lessening its size and allowing nature to fill and obliterate the abscess cavity with granulations.

This operation is often spoken of as Estlander's operation, though I believe the first section of the ribs for this purpose was performed by Dr. Warren Stone, of New Orleans.

You notice that during expansion of the chest, the air rushes in through this opening. To encourage the expansion of the lung a small piece of oiled silk was occasionally kept suspended over this opening. This acted as a valve, so that during the expansion of the chest the tendency was to draw air through the windpipe and expand the lung, instead of permitting it to enter the abscess cavity; this dressing permitted the pus to escape freely.

The present opening is between the 7th and 8th ribs on the left side. I shall remove a portion of the 6th, 7th, 8th and 9th ribs. A curved incision from above the 6th to below the 9th ribs is made with its convexity posteriorly, and a flap raised exposing these ribs only to the extent that I propose removing them.

I shall first attack the eighth rib, making an opening through it with a small trephine. Then, with this *rongeur*, which is simply a small pair of bone-forceps with blades very much like the old-fashioned pin-nippers, with one of the blades quite thin, I rapidly cut the rib away, piece by piece, to the extent of $3\frac{1}{2}$ inches. The thin blade of the *rongeur* is now placed under the edge of the rib above, which is readily severed, and each end removed piecemeal, as the first. Three inches of this rib, which is the seventh, will be enough. One and a half inches of the sixth and two inches of the ninth are now removed. By keeping close to the rib, after separating the periosteum with an elevator, no vessels are seen or injured. The wound is now cleaned, a small drainage-tube laid in it, the flap brought into place and sutured. A large drain is now carried through the original opening and fastened there.

Primary union may be expected in the recent wound. The empyemic cavity will be washed out as before, with antiseptic solutions, and may be expected to gradually lessen as the ribs shorten and collapse.

UNIVERSITY HOSPITAL.

CONCUSSION OF THE BRAIN (*Agnew*).

—Seven days ago, this man was admitted to the hospital for concussion of the brain, the result of a fall. He had all the symptoms: light, thin pulse, quiet respiration, cold sweat, low temperature.

The first sign of recovery in these cases is generally vomiting; the stomach seeming first to recover consciousness, as it were. Then the different symptoms just mentioned gradually subside. This is likely to occur in some six or eight hours. But, if respiration becomes labored and slightly stertorous; if the patient turns on his side and draws up his legs, as you see this man do; if his intelligence grows more and more dull, then the case will probably prove one of compression: and if so, then you are justified in trephining.

This man improved slightly until yesterday; but now he appears to be growing worse. He has been treated simply with heat along the spine and on the stomach.

At first the head should be kept nearly horizontal; but if the temperature rises, the head should be elevated, and an ice-pack applied to it. If the pulse grows rapid, look for an unfavorable result.

STONE IN THE BLADDER (*Ashhurst*).

—It is often said that children are more subject to this trouble than are men. The percentage of stone in the bladder of children is certainly greater than in men of, say, 60. But while this is true absolutely, it is not relatively so; for the simple reason that there are many times more male children than there are men of sixty.

The prominent symptoms of stone are: pain in the bladder after urinating, especially if the calculus is of uric acid; hemorrhage from the bladder; and also a sudden stoppage of the stream, caused by the falling of the stone against the internal orifice of the urethra.

Cystitis is not often met with in children, in cases of stone; but in adults it is more common, especially when the calculus is a phosphatic one.

Upon sounding the bladder, the patient, a boy of eight, was found to have a calculus. Dr. Ashhurst then performed the lateral perineal operation, and removed a stone as large as a good-sized almond.

No vessels were cut that required ligation, nor was a catheter left in; all the treatment given being simply to tie the boy's legs together.

MEDICO-CHIRURGICAL COLLEGE.

STENOSIS OF THE NASAL DUCT.—Keyser says that apparent stenosis of the nasal duct is often only a slight eversion of the *puncta lachrymalis*; and that in these cases the weeping eye can be cured simply by slitting the canaliculus. Bougieing the nasal duct is a little operation requiring great caution and nicety of touch. He has found in the orbit styles that the operator thought he had inserted into the nasal duct. Again, he has found styles just beneath the flesh, below the inner angle of the eye; both these and the others having been forced through the delicate osseous walls of the nasal duct.

He lays great stress on the fact that frequently the constriction of the nasal duct is caused by an extension upward of a catarrhal process in the nasal cavity proper. Here the primary trouble must also be treated; else there will be no permanent cure.

INVERSION OF THE LOWER LID.—For a case of this trouble, where the lashes kept up a constant irritation by rubbing the ball, he performed Von Graefe's operation. An incision is made through the skin of the lid, slightly below its free border. A V-shaped section is now taken from the part below this incision; and upon drawing the edges of the V-shaped opening together, there is a leverage brought to bear on the tarsal cartilages which restores the lashes to their normal position.

ORTHOPÆDIC HOSPITAL.

AMPUTATION OF FORE-ARM.—For some six months there has been at the Orthopædic Hospital a case of caries of the right carpus with gelatinous degeneration. During this time several

operations were made by Dr. Goodman, for removal of the diseased tissues, but without permanent relief. Finally he was compelled to resort to amputation, which he performed at the lower third of the forearm. Anterior and posterior flaps were made of the skin, but the muscles were divided by a circular incision. The particular feature of the operation was the making of a periosteal flap also, with which the ends of the bones were covered.

CHOREA FROM DEFECT IN VISION.

—Girl of ten; was first affected by rapid winking of eyes, then twitching of face, and finally, general restlessness. At school she ranks fourth in a class of 42. Dr. Sinkler says he has never known a case of chorea to be at the foot of the class. He decided that the chorea was caused by a defect in vision, and predicted hypermetropia; as that is usually found in such cases. Her eyes were examined by an oculist and found to be hypermetropic. The only treatment will be glasses, unless these should not prove sufficient.

MIGRAINE.—A woman subject to this trouble has had the frequency of the attacks much lessened by ten-drop doses of tincture of cannabis indica three times a day, increased one drop each day till fifteen drops were taken at a dose. Cannabis indica should not be given on an empty stomach, as its rapid absorption is likely to cause uncomfortable head symptoms.

EPILEPSY.—A combination of digitalis and the bromides is often effective, where the bromides alone give little result.

A GOOD TONIC.—Here is a good tonic. The ingredients may be used in various proportions to suit varying conditions:

- R Hydrargyri chloridi corrosivi
- Sol. arsenici chloridi
- Acidi hydrochlorici dil.
- Tincturæ ferri chloridi
- Aquæ, or some other menstruum.

—DR. TAYLOR.

JEFFERSON COLLEGE.

LACERATED PERINÆUM.—In performing this operation, John C. Da Costa begins at the extreme back of the tear,

and works up the posterior wall of the vagina, removing all the cicatricial tissue; the operation being done subcutaneously with a pair of blunt-pointed scissors. In this way the operation is made a comparatively bloodless one; and, in addition, the operator is sure of having all the surface denuded; and runs no risk of having some unrefreshed portion left to delay union.

The parts were brought together by three silver-wire sutures, buried throughout their whole extent. The upper stitch was at the extreme upper part of the denudation. The freshened edges of the mucous membrane of the vagina were stitched together with catgut.

The wire sutures, beginning with the upper one, were drawn through a slotted hard-rubber cylinder on either side, and tightly secured by shot.

After the edges of the wound had been brought still more closely together, by means of a continuous catgut suture, the free ends of the wires were twisted lightly over the median line. In from twelve to thirty-six hours swelling would arise, and then the wires would be cut close to the shot; but the parts would still be held together by the deep sutures.

WHEN NOT TO GIVE MILK.—For several days before an abdominal operation, Montgomery gives his patient a liquid diet, but no milk; as he says milk gives rise to scybalous fæces.

WILLS' EYE HOSPITAL.

EXTERNAL STRABISMUS FROM A DOG'S BITE.—A child came to Dr. Goodman's clinic at the Wills' Eye Hospital, suffering from external strabismus of the left eye, the result of a laceration of the internal rectus from a dog's bite. He entirely detached the internal rectus anteriorly, and stitched it to the conjunctiva near the cornea.

In order to relieve strain on the new attachment, the eye was then guyed to the right, by passing a silk suture through the conjunctiva, and fixing the thread to the right cheek by adhesive plaster.

Diphtheria is prevalent among the nurses and students at Guy's Hospital.

PHILADELPHIA HOSPITAL.

SKIN GRAFTING.—Skin grafting is now quite common for covering the expansive wastes of old leg ulcers, and other parts of the body denuded of the natural covering. But it is not now transplanted by the square inch; the smaller the graft the better. Here is one way of doing it: Insert a delicate needle under the epidermis of some healthy spot, and after passing a small pair of curved scissors or a sharp scalpel under the needle, snip off a minute portion of the epidermis. Carry this on the needle to the denuded part, and press it lightly down, taking care that the graft rests on its fresh surface.

DANGERS OF THE HYPODERMIC NEEDLE.

—Parish cautions against sticking a hypodermic needle into a tumorous abdomen in order to see what is there. Many a patient has been killed, he says, by the escape into the peritoneal cavity of a little of the fluid, after a needle has been withdrawn from an abdominal cyst.

For the same reason he objects to aspirating the fluid; but if aspiration be preferred, he insists that the greatest care should be taken to remove all the fluid, so that none may be left to percolate through the punctured wall of the cyst.

CURVATURE OF THE SPINE.—Beginning curvature of the spine, so frequent in weak girls of rapid growth, can often be avoided by hygienic means. A ladder hung horizontally, on the rounds of which the girl suspends herself by her hands for a few minutes each day, is good; so are dumb-bells.

An excellent plan is to have the patient lie on her back, flat on the floor, for an hour in the middle of each day. Besides this, her position in bed should be nearly horizontal; whereas you will find that these girls generally prop their heads up with two or three pillows. When these measures are not sufficient, we must resort to plaster-jackets, braces, and the like.

BICHLORIDE FOR ERYSIPELAS.—For erysipelas, Bruen has been in the habit of giving tincture of iron and bichloride of mercury internally. In a recent case when erysipelas appeared on the face of a patient with purpura hemorrhagica, a case which would not admit

of medication *per os*, he ordered hypodermatic injections of hydrarg. chlor. cor., gr. 1-100, twice a day. The effect was remarkable, for in twenty-four hours, or after two doses, the erysipelas had disappeared.

SURGICAL CLINIC OF THE MEDICO-CHIRURGICAL HOSPITAL.

SECTION OF SUPERIOR MAXILLARY NERVE AT BASE OF SKULL.—Dr. Garretson performed the operation of removing the whole of the second branch of the trifacial nerve, making the section at the foramen rotundum, before the classes of the Medico-Chirurgical and Dental Colleges, for the fifth time this present term. The time occupied was just twenty minutes. This operation is so infrequently done that it has been witnessed by few medical students. The facility with which it is to be accomplished by the aid of the surgical engine, as demonstrated by Dr. Garretson, is certainly calculated to inspire anyone who sees it with a self-confidence, as to an ability to repeat the performance. The clinician told his class that not only had he never lost a patient from the operation, but that no worse results had ever troubled him than an occasional secondary hemorrhage or an attack of erysipelas. The patient in this case is a lady from Massachusetts, who has been a great sufferer from neuralgia for a number of years past. There was present at this clinic, Dr. K., operated on after the same manner and for the same purpose some two months back. His relief from pain remains as before reported. A third patient, a Mr. B., of Burlington, N. J., whose inferior maxillary nerve was removed in its entire length from the mental to the oval foramen, is reported as continuing entirely free from pain, his operation having been done at the commencement of the course, last September. Dr. Garretson spoke of this case as expressive of the greatest physical suffering he had ever encountered. The largest part of these operations it is to be understood are done exclusively by the sense of touch, a sense which is shown to be quite as reliable as that of sight, even where the handling concerns a bur which is being whirled to the extent of ten thousand revolutions to the minute.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 1, 1888.

EDITORIAL.

THE PHILADELPHIA MEDICAL
TIMES.

THIS number of the journal will be sent to several who are not subscribers; but who, we hope, will thereby be encouraged to become such. It will be seen that the *Times* endeavors to represent to its readers an epitome of the clinical work done in Philadelphia. Being the only medical journal which bears the name of this city, it seems that the work of this great medical centre is most appropriately recorded in the PHILADELPHIA MEDICAL TIMES.

One hundred and fifteen public clinics, to which students are admitted, are given weekly in this city.

While the development of the West has been so great that even Philadelphia can no longer claim to be the only medical centre, still there are thousands of physicians who look to the great schools here as their own, and to whom the work of Agnew, Pancoast, Da Costa and their colleagues is of interest.

What these distinguished teachers, and many more, are now doing, we endeavor to show in our Clinical Notes. These notes are taken down by our reporters at the clinics. They must not be looked upon in the same light as the finished productions of these teachers. We record the fact that one man prescribes a certain drug in a certain case. This may be his routine treatment, or it may be simply an experiment, which future investigation may sustain or not. In any case, these notes form the latest, the freshest intelligence concerning Philadelphia clinical work.

The matured results of this work are presented in our Society Notes. We have not space at our command to print the proceedings in extenso, nor, as a rule, has the busy practitioner time to read them. We content ourselves with reviewing these proceedings, and picking out the important points.

Our Paris and London letters have become widely known, and are quoted more extensively than the foreign correspondence of any other American journal.

By opening a department headed "Letters to the Editor," we seek to draw the journal and its readers more closely together, and to establish a community of interests between them.

In all respects, we endeavor to make the TIMES a *useful* publication, to study the needs of our supporters, and not to degenerate into a mere recorder of pathological curiosities.

If those who receive this journal conclude that we are fulfilling a want which they experience, we will be pleased to receive their subscriptions; if not, we will be glad to receive their suggestions as to how their needs can be better served.

At the Medical and Surgical Society of Baltimore, Dr. S. T. Earle reported a case of syphilitic stricture of the rectum of long standing, treated by electrolysis. At the first sitting only a very small sound could be passed. Now a sound two inches in circumference passes with ease. The condition of the patient is much improved in all respects. No other remedy was used during the treatment by electrolysis. The case had been previously operated by posterior linear proctotomy with subsequent dilatation, but without permanent benefit. When he began treatment of the case nothing seemed to promise so little success as electrolysis,

but the result has exceeded his most sanguine expectations.

In the discussion on this case, Drs. Chambers, Rennolds, and Rohé, reported cases of urethral stricture successfully treated by the same means.

A GOOD WORK.

THE Committee of Dietetics and the Section of Diseases of Children of the American Medical Association took up the consideration of the question of Infant Feeding. This was most wise. Few subjects could have been discussed which are of equal importance to the physician and to his clientage. The proportion of deaths from gastrointestinal diseases, in children under five years, is so great as to be a standing disgrace to the medical profession. It cannot be gainsaid, that a more thorough acquaintance with the physiology of digestion would greatly diminish this mortality.

We occasionally hear the rather remarkable assertion that cow's milk, in its natural condition, is to be preferred as the proper food for infants. The fact that a calf has four stomachs, while a baby has but one, and that a very little one, ought to show that the food elaborated by Nature for the calf is scarcely suited to the infant. Besides, the calf begins active exercise as soon as it comes into the world; the babe lies helpless for months.

But little reflection is needed to develop other objections to milk. Of all foods it is the most liable to impurity as to the source of supply. The discussion upon the transmission of scarlatina by the milk of sick cows is still fresh in our minds. The finest beef in the world is that supplied to the London markets; and yet, a few years since, the Registrar-General of Great Britain stated that fifty per cent. of these cattle were tuberculous. The trans-

mission of disease from domestic animals to man is now attracting considerable attention; it is almost a virgin field; and the possibilities in this direction are unknown.

But this is by no means the only objection to milk. It varies greatly in quality, in the proportion of its constituents, etc., according to the breed of the animal, its health, food-supply and the care taken of it.

Milk is proverbially easy to adulterate; and the water from the barn-yard well is only too apt to contain many other ingredients besides HO.

Milk is of all foods the most prone to decomposition; and demands the greatest care and the most scrupulous asepticism to preserve it in hot weather.

Milk is also exceedingly apt to absorb impurities. Put a pan of milk in the refrigerator in which a bit of tainted meat has fallen down into some nook or corner; and the milk will soon absorb the odor of the decomposing substance, and also its poisonous properties. The list is not yet exhausted, as the celebrated researches of Vaughan have opened up new possibilities of evil from this "model food." It would be indeed difficult to find a food to which as many or as vital objections could be raised as against ordinary cow's milk.

The woman who claims to have cured her child of cholera-infantum by feeding it with raw peaches, occupies far more defensible ground than the physician who orders an exclusive milk diet.

To a large extent, the same objections hold good in the case of such foods as require milk to be given with them. Whether these add to the milk any constituents in which it is deficient, whether they increase its digestibility, hinder the formation of hard curds, or simply increase the child's difficulties by adding other elements which its

digestive powers are unprepared to cope with, may be passed by, in view of the fact that the grim array of indictments against the milk with which they are given, still remains on the calendar.

The qualities to be required of a perfect food for infants are as follows :

1. It should be sufficient in itself to fully nourish the infant, without the further addition of any uncertain substances.

2. Its constituents should be in such a state that even the weakest digestive powers can utilize them. Stronger children need less care; but with them the question is less important. It is the feeble infant which requires the most exact and scientific feeding.

3. It should be put up in such a shape that the least amount of intelligence and of labor are needed to prepare it. A food which requires a chemical laboratory, or a tedious and complicated method of preparation for use, is unsuitable for general consumption.

4. It should be so put up as to keep well in all climates, and not be prone to spontaneous decomposition.

As Vaughan so well puts it : "There is the same reason for the drying of milk and the preservation of its solids that there is for the curing of meat or the canning of fruit. The dried milk solids may be transported any distance and kept for any reasonable length of time, if properly prepared, without undergoing putrefactive changes."

5. Finally, it should be sold at such a reasonable price as to bring it within the reach of all classes.

In conclusion, we will say, that this subject ought to be handled without gloves. Of the multitudinous infant foods in the market, each and every one is better than all the others, according to the manufacturer. No competent authority has as yet conclusively

pronounced in favor of any one article, still less shown in what conditions each is most appropriate. Meanwhile, as each physician goes in turn over the same path, painfully repeating experiences which have already been fully performed by others, each new experimenter marks by the little graves the process by which he satisfies himself as to the proper use of these foods.

How many infant deaths are due to the fear that one may be thought an advocate of some particular firm's goods! It is time that this silly affection is dropped. The American Medical Association should define what constitutes a perfect food, and leave the manufacturers to come up to the standard so set. As the Czar said, when he drew a straight line to represent the course of the railway, "There is your road; let the people move up."

Then, if any manufacturer has succeeded in producing a food which complies with these requirements, let him have the credit his skill has earned. By all means, this committee should be continued. Let them conclude their work, and give us a report which will embody the principles of infant-foods and so enable us to reject empiricism in infant feeding.

AMERICAN MEDICAL ASSOCIATION.

SECTION OF DIETETICS.

An Abstract of the Report of the Special Committee of Dietetics.

READ BY E. A. WOOD, M.D.,
of Pittsburgh, Pa.

THE width of the subject itself makes it impossible to formulate an exhaustive report, and your Committee feels that there are very many able men who, through no discourtesy, are not on its rolls of membership, but who ought to be there. We therefore come before you with this report, and especially recommend that you take such action as to insure the continuance of the work

which is begun, either by special committee, or by the establishment of a section especially for this work.

Americans are beginning to recognize the value of dietetics, and the question of what to cook, and what to eat and drink, that which will secure the highest degree of comfort and extend life, is being asked more and more. This has turned dietetics into a practical knowledge. It stands in the front rank of the medical art. Dietetics has joined hands with organic chemistry, to elevate the popular tastes, and promote a deeper scientific research that will in the end find that which will maintain the human life, appease hunger and promote health from the cradle to the grave. Dietetics has joined hands with physiology, and clearly illustrated the various properties of vegetable and animal tissues. We know that food which is suitable for digestion prevents disease, and being well prepared, is made inviting to the taste and suitable to nutrition. Dietetics has taken the physician into its hands, and has led him into new and fresh fields. It is found to be easier and far more profitable to lead the patient back into the path of health by a judicious nourishment and dieting, than by giving him horrid doses of powerful medicines, etc., etc. Perhaps in no other class of maladies is the fitness of the alimentation so supreme in importance as in infancy. The mode of feeding children and treating them under one year of age is in many cases almost criminal, when we consider the large percentage of deaths.

It is believed that a large majority of cases of sickness of children, especially during the summer months in cities, is caused by over-heat, but the effects of hot weather and crowded cities, though bad, is over-rated. There are two causes of this trouble; first, the vendor of adulterated milk—milk that has been kept in vile vessels—watered milk—adulterated milk—milk that has been obtained from diseased cows, who have been confined in hot filthy stables throughout all their miserable lives—such milk as this slays thousands of helpless babes in this land of ours each year. Such milk as this is unfit for any purpose, and it should be kept out of America. Those who vend such

milk are deliberate criminals. The other class of infant's diseases is caused by mothers and nurses who will persist in over-feeding babies, dreading starvation, and forgetful of the fact that when a baby cries it wants water, not milk.

As to the difficulty of obtaining milk, thousands of children might be saved, by reasoning out what is the best substitute, and what is the best substitute for the individual case. Cow's milk would seem to be the most rational substitute; but there are many cases where the infant cannot digest the milk, where it can digest some starch foods. In the absence of knowledge, we go on treating the infantile martyrs, regulated in our course of treatment only by whatever common sense we have, and the personal experience of the individual practitioner.

Through the knowledge of dietetics the members of the Medical Profession have become the custodians of the public life of the people of America. It is our duty to attend to the health and future welfare of the American race. It is the duty of this Association, of this Medical Convention, to warn our people of the danger threatened, and to direct its powerful organization against the evils, which if not arrested, will result in disaster to the people and nation.

The Committee would also call the especial attention of the Association to the various so-called artificial foods that are being manufactured, and that fill our drug stores throughout the country and are sold as fit food for infants and invalids. Many of these compounds are highly injurious, and yet they are being sold in large quantities. On this subject the American Medical Association must exercise its authority in the most positive manner. What is wanted is a thorough investigation of these various compounds by a committee of competent men who will command the confidence of the country.

REPORT OF SUB-COMMITTEE ON INFANT-FEEDING.

Your Sub-Committee on Infant Feeding respectfully reports that it has only had the subject under consideration for about two months, and during this time it has opened correspondence with some of the leading authorities, both in

this country and in Europe, upon the very important questions submitted to it, especially with reference to the proper diet of infants. Though not prepared to make a final report upon the subject at present, it believes that some facts have been elicited, which are valuable and which are of sufficient interest to bring before this Association.

Thus far, replies have been received from Dr. Eustace Smith, of London; Dr. J. Lewis Smith, of New York; Dr. Victor C. Vaughan, of Ann Arbor, Michigan; Dr. George H. Rohé, of Baltimore; Dr. F. Forchheimer, of Cincinnati, and others, to whom we desire to return thanks for their assistance and courtesy. (The correspondence and replies to queries submitted are appended to this report.)

The leading facts thus far obtained may be briefly stated as follows:

1. In the case of an infant, or a child under ten months of age, deprived of breast-milk, the artificial substitute provided should be made to correspond with human milk as closely as possible, both in its chemical constitution and in its physical characters.

2. Fresh, unadulterated cow's milk, when properly prepared, is an acceptable substitute for breast-milk. But since the casein of cow's milk coagulates in a heavy, dense mass, while breast-milk curd is light and flocculent, some expedient must be resorted to in order to make the former resemble the latter, so that the digestive powers of the infant shall not be unduly taxed. The casein of cow's milk, according to Dr. Eustace Smith, as the rule, traverses the infant's alimentary tract and may be found unchanged in the fecal discharges. It is, therefore, a constant source of irritation, and often gives rise to diarrhoea and entero-colitis. One of the most decided advances in dietetics in modern times, is the preparation of cow's milk with the aid of digestive agents, as in the method recommended by Prof. Frankland. In this method the casein of a portion of the milk is first peptonised by fresh calf's rennet, and to this is added a portion of fresh milk, after heat has been applied to check the process and to prevent complete predigestion; some milk-sugar is

finally added, and thus a mixture is obtained which closely approximates human milk in its chemical composition. It has, moreover, been found to serve as an efficient substitute, where the mother's milk is of poor quality, is inadequate in quantity, or is entirely wanting. The special feature of this method is the peptonising of only a part of the casein, with the employment of heat at a certain stage to arrest the process so that the food shall not be completely digested. The addition of the carbo-hydrate (milk-sugar in this case) is necessary, in order that the food shall closely resemble human milk. The employment of stale, foul-smelling, partially decomposed digestive ferments, for the purpose of preparing cow's milk for infant's food is condemned. The necessary skill and intelligence required to insure uniformity of result for the extemporaneous peptonising of milk is rarely to be found in the house hold, and where this process is adopted, the experiment often turns out to be unfortunate and injurious to the child.

3. As the rule, raw starch is inadmissible in the diet of young infants, because the digestive powers of the infant are rarely sufficiently active to convert crude starch into a soluble form. The plan advocated by some, of adding the starch to the milk in order to mechanically break up the curd, is unphysiological and very objectionable. The products of the complete digestion of starch are glucose and saccharose (maltose), and these, in various forms, have been recommended to be used as addition to the milk, under the name of "Liebig" foods. When in excess, these substances cause diarrhoea, and when given alone do not sufficiently nourish the child. Dr. J. Lewis Smith speaks favorably of dextrine, which is a partially digested starch, as a good substitute for glucose and saccharose in such artificial foods. The fact cannot be too strongly insisted upon, which is taught both by clinical experience and by physiological investigation, that the food of either infants or adults, except in special emergencies, should never be fully predigested, for fear of permanently weakening or destroying the digestive functions of the stomach.

4. A great part of the large mortality of infants in all our cities is due to the bad quality of the milk supply, particularly that going to the poorer classes. Professor Vaughan declares that many deaths from so-called cholera-infantum are really caused by milk containing tyrotoxinon. Authorities are almost unanimous upon the point that in large cities, at least during hot weather, all milk for the nursing bottle should be boiled several times a day, in order to destroy ferment-germs. It is better, at such time, that the food should be freshly prepared for each feeding. In some cases, owing to the variability in the quality of the milk-supply, it may be advisable to resort, for a short time, to condensed or evaporated milk; in either case diluting and adding cream, or an equivalent, soluble carbo-hydrate, in order to make an artificial breast milk. Desiccated partly peptonised milk, in the form of a milk food, containing partly converted starch (soluble starch and dextrine,) and a small quantity of lactose is a convenient (and when well made, a very efficient) substitute for the mother's milk.

5. Where a child is a premature birth, or is feeble from other causes, as great care should be observed in preparing its food as in prescribing its medicine. Experience has demonstrated that success in infant-feeding is dependent upon the ability to individualize the patient, and to select the proper food for each case. For very delicate infants the mother's milk is often found not only inadequate to properly nourish the child, but also positively injurious. This is generally admitted where some obvious dyscrasia exists, as the tuberculous or syphilitic. It is a fact that in such feeble infants artificial mixtures can be made which will agree with the weak digestive functions and satisfactorily nourish the child.

In conclusion, your Sub-Committee would direct attention to the remote and far-reaching effects of the mal-nutrition resulting from improper feeding in early life, to be witnessed in chronic invalidism or in premature death of the individual, and to the inevitable physical degeneracy threatening the race where the principles of infant dietetics are neglected. In view of the impor-

tance of the subject, the Sub-Committee respectfully ask to be continued in order to further investigate the matter, and to report to the next meeting. All of which is respectfully submitted.

FRANK WOODBURY,

Chairman of Sub-Committee on Infant Feeding.

A SYMPOSIUM ON INFANT FEEDING.

BY DRS. EUSTACE SMITH, OF LONDON; J. LEWIS SMITH, OF NEW YORK; F. FORCHHEIMER, OF CINCINNATI; GEO. H. ROHÉ, OF BALTIMORE; VICTOR C. VAUGHAN, OF ANN ARBOR, MICH., AND FRANK WOODBURY, OF PHILADELPHIA.

[I]N the effort to establish some fixed principles with regard to infant feeding, particularly from the clinical standpoint, questions were formulated and sent to various gentlemen of experience in the treatment of children's diseases; and the following replies were kindly furnished by those whose names appear at the head of the article, which is a portion of the report on Infant Feeding of the Committee on Dietetics, American Medical Association.]

Question I.—Are malt sugar foods liable to produce abnormal fermentation in the stomach, especially with infants? Do they often do so? Can you assign the reason in cases where it occurs? Is maltose in excess in the food of infants objectionable, and why?

I have never seen any signs of fermentation which I could attribute to the influence of maltose. It is true that all infants cannot digest maltose or malted foods, but even in these cases, I have never seen reason to suspect the difficulty to be due to the fermentation of maltose. (Eustace Smith.)

I believe that all sugar in excess of that normally contained in mother's milk is liable to undergo fermentation before it can be absorbed, and hence, by interfering with the normal decomposition of the bile in the prima via, hinders absorption of fats and possibly of peptones, and so interferes with nutrition. (Rohé.)

It depends entirely upon what form the malt sugar is administered in. In general it must be said of the carbohydrates that they are best administered to infants in the form of glucose,

Maltose is not a glucose, and ought not to be administered to infants in whom the salivary and pancreatic functions have not been established. In regard to the sugar ferment of the stomach, nothing is known as far as relates to infants. (Uffelmann's case is the only one on record, and that was in a boy.) (Forchheimer.)

Yes. Malt sugar undergoes fermentative changes very readily, and often does harm when used as an ingredient of infant's foods, on account of its fermentation. (Vaughan.)

Maltose can be assimilated by the infant only in very small quantity; when administered in excess it gives rise to diarrhoea, probably owing to its fermentation. It is also objectionable because it starves the tissues, while it increases the fat, giving an appearance of plumpness and health to the infant which, however, is delusive, as seen by its feeble powers of resistance to disease. (Woodbury.)

Question II.—If the Liebig or malt-sugar foods are likely to ferment in the stomach before assimilation commences, is it advisable to add them to cow's milk, in which the resulting acidity tends to transform the casein into indigestible curds?

I do not think it advisable to add maltose to cow's milk in greater quantity than would be necessary to raise the proportion of sugar in cow's milk to make it correspond in this respect to human milk. For this purpose, I think pure cane sugar is preferable to preparations of uncertain composition. (Rohé.)

In Liebig's food the starch is converted into dextrose, as well as into maltose. (Forchheimer.)

It is not advisable to add malt-sugar to cow's milk which is to be used for infants' food. (Vaughan.)

As ordinarily practised, the feeding of children with Liebig's foods with (milkman's) cow's milk, is not advisable and often distinctly injurious. (Woodbury.)

Questions III and IV.—Should not dextrose be preferred to malt sugar for ingestion in the case of infants, and if so, for what reasons? Can dextrose ferment before it is changed to sugar?

With regard to the first four questions relating to the fermentability of

malt extract, I think they should be addressed more appropriately to the physiological chemist, than to the physician. (Eustace Smith.)

I have no opinions to offer upon these points. I have seen it stated somewhere that dextrose does not ferment before it is changed into sugar, but this is not remarkable, since dextrose is simply one of the stages of the process by which starch is converted into sugar, or, carrying the process further, into alcohol and acetic acid. But I can readily understand that it may be advantageous to have something for the amylolytic ferments present in the saliva and pancreatic secretions, of even quite young children, to act upon, rather than that these ferments should be mingled with the food in the stomach and intestinal canal, without an opportunity of undergoing their physiological decomposition. (Rohé.)

Dextrose must first be converted into dextrose before it can be utilized by the economy. Dextrose, which is a starch, cannot be fermented until converted to dextrose (grape sugar). (Forchheimer.)

Dextrose is preferable to malt sugar, because it (the dextrose) does not ferment so readily. I do not think that dextrose can undergo fermentation before it is converted into sugar. (Vaughan.)

The chemistry of the different forms of glucose is still in an unsettled condition. I am opposed to an excess of any and all forms of sugar in the diet of infants. Dextrose is partially digested starch, and is readily converted into dextrose by the digestive fluids. It is preferable to maltose, because it affords an opportunity for physiological activity of the digestive fluids containing ptyaline, (salivary and pancreatic secretions, succus entericus.) (Woodbury.)

Question V.—Will any of the ordinary artificial "Infant Foods" now in the market thoroughly nourish the child without the addition of cow's milk?

No artificial food will efficiently nourish an infant unless cow's milk be added; for all preserved foods want the living antiscorbutic principle which is only to be found in fresh foods. In other respects, many of them, such as the desiccated milk foods, contain in themselves, as far as I know, all the elements of nutrition. (Eustace Smith.)

None of those foods, which I have studied either theoretically or practically, seem to me to fulfil the indications. It seems strange, however, that with the large amount of definite knowledge we possess upon the physiology of digestion, chemists have hitherto failed in giving physicians a trustworthy preparation based upon physiological principles. (Rohé.)

Yes; provided you include milk foods, as ———'s or ———'s. (Forchheimer.)

Yes, there are one or two. (Vaughan.)

I think that a good milk food answers the requirements very acceptably. (Woodbury.)

Question VI.—Do the ordinary so-called infant foods add any constituent to cow's milk which it does not contain in sufficient quantity already?

I do not think that the ordinary infant's foods add any constituents to cow's milk which it does not already contain in sufficient quantity, but many of them, by presenting certain of the constituents in a more digestible form, may contribute greatly to the nutrition of the infant. For instance, few children digest a sufficient quantity of the curd of cow's milk. The greater part of the casein, in the shape of a dense mass with the toughness of cheese, passes almost unchanged by the bowels. Where this is the case, the child runs a great risk of being under-nourished unless he assimilates some substitute for the missing curd. This may be supplied by the addition of a well-selected infant's food. (Eustace Smith.)

None, in my opinion, except sugar. (Rohé.)

Yes. (Forchheimer.)

Yes, the best add dextrine. (Vaughan.)

If the cow's milk is diluted, some of the foods do, by making up the deficiency of carbo-hydrates or hydro-carbons. (Woodbury.)

Question VII. Should not all the infant foods that are required to be given with cow's milk of ordinary quality be rated in value as sugar only?

I cannot answer. (Eustace Smith.)

Yes, because any other constituents are unnecessary and probably injurious. (Rohé.)

No, salts and some sugar. (Forchheimer.)

Yes. (Vaughan.)

There are many that are inferior in food value to plain sugar.—(Woodbury.)

Question VIII.—Do any of the "Milk foods" contain more than fifteen per cent. of solid constituents of cow's milk?

I cannot answer. (Eustace Smith.)

I have before me as I write, a preparation for which the claim is made that it contains 50 per cent. of cow's milk. Now, as cow's milk contains only twelve per cent. of total solids, there are in this special preparation only six per cent. of milk solids. Another preparation in my hands at this moment is said (on the label) to contain fifty per cent. of the solid constituents of the milk. The other fifty per cent. is said to consist of dextrine and soluble starch. I have had no practical experience with this preparation. However, if the claim made for it is true, this would answer the question in the affirmative. (Rohé.)

Yes, if I understand the question correctly. (Forchheimer.)

Yes. (Vaughan.)

I do not know. (Woodbury.)

Question IX.—Recognizing that the casein of breast-milk is partially a peptone, must not cow's milk, with its tough casein, be poorly adapted to the rearing of infants whose digestion is feeble in comparison with that of the calf?

I think the cow's milk should be specially prepared for the infant's stomach, whether by pre-digestion or otherwise. (Eustace Smith.)

In practice I have found that many infants can digest the casein of cow's milk, but this pre-supposes intelligent feeding which is not always attainable. Such children, however, much oftener suffer from digestive derangement than nursed infants. (Rohé.)

I do not recognize the casein of breast-milk "as partially a peptone." Human milk does contain a small quantity of peptones but we are far from certain that they are derived from the casein. (Forchheimer.)

Yes. (Vaughan.)

Yes, especially if the infants are at all delicate. (Woodbury.)

Question X.—In view of the difference

in the character of casein of human milk and cow's milk, is it not advisable to have the cow's milk partially pre-digested, or sufficiently so as to render it like the casein of human milk and as readily digestible by the infant?

Cow's milk should be especially prepared for the infant's stomach, either by pre-digestion or otherwise. (Eustace Smith.)

If this could be attained in practice, I think it would be a great advance in the art of nourishing children deprived of breast-milk. The preparation referred to (under VIII) is said to be partly so digested. The claim deserves investigation by experts. (Rohé.)

If cow-casein could be so changed as to be identical in all respects in its properties with human casein, the problem of artificial feeding would be almost solved. (Forchheimer.)

Yes, this is a very important point. (Vaughan.)

"This is a consummation most devoutly to be wished." (Woodbury.)

Question XI.—When farinaceous foods are added to cow's milk for the purpose of preventing the hard coagulation of casein by their physical action, do they not add another indigestible element, and is not their value for the purpose dependent upon their insoluble or indigestible character?

Cow's milk should be specially prepared for the infant's stomach (answer to previous question). If this be attempted by the addition of flour or similar starchy compounds, I think the farinaceous addition contributes little to the nutrition of the infant. (Eustace Smith.)

I think the practice objectionable, at least before the child has reached the tenth month of age. (Rohé.)

It depends entirely upon the age of the infant. (Forchheimer.)

Yes. (Vaughan.)

Yes, the object of adding corn-starch or similar substances is avowedly to make the curd less cohesive, and not to add any nutritive element to the food. (Woodbury.)

Question XII.—Is the peptonizing of cow's milk practical in the household and can it be uniformly and properly performed by the nurse or mother, or does it require the supervision of an experienced chemist?

The peptonizing of cow's milk is quite practicable in the nursery; the ordinary process does not digest all the curd, but still enough for all practical purposes. (Eustace Smith.)

In a few cases I have been able to make mothers understand the process of peptonizing milk; but in the majority of instances my efforts have not been rewarded by success. The proceeding is so troublesome that mothers get careless, and nurses—well, the people who need nurses most are generally unable to employ them. (Rohé.)

No. The method most commonly used (—'s) is bad; and it is the only one which can be carried out by the intelligent (!) attendant. (Forchheimer.)

It should be done under the direction of a competent chemist. Nurses will not do it as it should be done. (Vaughan.)

I consider it impracticable. The women intelligent enough to conduct the process properly are engaged in teaching in some college and if married, rarely if ever, have children. (Woodbury.)

Question XIII.—For infant-feeding should the casein of cow's milk be wholly pre-digested, or fully peptonized, and if not, why?

I think it objectionable to relieve healthy organs of any of their duties; hence I object, in the interest of the future health of the individual, to wholly pre-peptonize, pre-emulsify, or pre-pancreatise any food. While there may be no exact observations on record, I think a stomach whose peptic glands are not called into use might get altogether out of the habit of digesting, and so be of no more use to the individual than a bag of rubber which had the power of rhythmical contraction. (Rohé.)

I think that peptones (not peptonized milk) can be used to great advantage in proper cases. Peptonized milk is out of the question, as we have no method by which this can be obtained with accuracy. The use of pancreatic ferments, in my opinion, is fallacious, as it introduces into the intestinal tracts, especially very young ones, products that are decidedly dangerous in their actions. I have made some experiments with the —'s process, which has pushed me to the conclusion that my reasoning is correct. I have

seen infants under two months do well on cow's milk, when they would have died with mixtures. One series of experiments was conducted upon foundlings, half of which were given milk undigested, and the other half —'s digested. The result was that those on milk did well, and the other half had to be returned to milk, otherwise they would have died. Besides, tryptic and stomachic digestion do not agree together. (Forchheimer.)

The casein should not be wholly digested. It is unscientific to feed a child upon food the proteids of which are wholly digested. The stomach must have some work to do, or it will become enfeebled by disease. (Vaughan.)

No. It is unphysiological. (Woodbury.)

Question XIV.—Since pancreatic is itself subject to putrefaction, should it not therefore be used for the purpose of digesting milk *only* when freshly made? Is the offensive odor of some pancreatic preparations that are sold in the market due to impurity or decomposition? Is there danger that such putrefactive changes are likely to impart deleterious qualities to the milk?

The pancreatine should, of course, be used before it has putrefied and lost its properties. (Eustace Smith.)

I think it highly probable that ptomaines may result from the decomposition of pancreatic ferments. I must confess, however, that I have no observations upon this point beyond the violent appeal to my olfactories made by some pancreatic preparations. (Rohé.)

Whatever has been said about —'s, is true of all pancreatic products. (Forchheimer.)

Yes, the offensive odor comes principally, I think, from impurities; though some pure preparation, even if it could be obtained, would probably decompose. (Vaughan.)

Unless nastiness be a recommendation, the commercial digestive preparations should be excluded from the household. (Woodbury.)

Question XV. What proportion of cow's milk found in our large cities during the summer months is in a proper condition to feed children? Is

not the cause of the great mortality at this season largely due to the fact that fermentative changes take place in the milk before it reaches the consumer?

In large cities during the summer, cow's milk brought from a distance is, no doubt, often far from fresh, and therefore ill-adapted to further healthy nutrition, if not actually injurious to the recipient. (Eustace Smith.)

Sanitarians are agreed that the methods of milk supply in large cities urgently demand reform. There is no doubt that during the hot weather of summer decomposition sometimes occurs in milk which renders the latter violently poisonous. The outbreaks of tyrotoxicon poisoning so well studied during the last two years by Prof. Vaughan, Drs. Newton and Shippen Wallace and Prof. Shearer, of Iowa, prove this. Added to this danger is that of allowing milk from tuberculous cows (and nearly all city cows are tuberculous) to be sold. I have advocated the inspection of milk by qualified officials in this city, but I am not sanguine that such inspection would remove the most serious danger, which is not adulterated milk, but milk that is unwholesome or dangerous from other causes. (Rohé.)

I know of but three milkmen in this city (Cincinnati) who supply milk which can be absolutely relied upon in summer. Yes. (Forchheimer.)

I think that poisonous milk is the cause of a large per cent. of the mortality among children, especially among the poor classes of our large cities. It would be impossible to say what proportion of the milk supplied to the cities becomes unwholesome, in the hands of the small retail dealer and also after it has been sold to the poor, who have no means of keeping it at a low temperature and in a non-vitiated air. (Vaughan.)

To the dangers from adulteration with ditch-water or that from infected pumps, we have that from metallic poisoning by the cans. (See article by Dr. Geo. Hull, PHILA. MEDICAL TIMES, vol. xvii, p. 256.). (Woodbury.)

Question XVI. What recent advancement has been made in foods for infants that is worthy of consideration in furnishing us with an artificial food at all

analogous to, or approximating towards, human milk in composition and digestibility?

I have no personal knowledge of such advancement. (Rohé.)

None. The last one was only applicable to individual cases, however. (Forchheimer.)

It is possible that such an advance has been made; the matter is still under trial before the profession. (Woodbury.)

I think that the addition of dextrine instead of sugar or starch to the milk solids and the partial digestion of casein are important advances. (Vaughan.)

Dr. J. Lewis Smith, New York, writes as follows:

April 24, 1888.

According to my observations, babies can digest dextrine readily, even those under the age of three months, who digest starch with difficulty. I have during the last two years employed in nursery feeding, with the best results, wheat flour, prepared by being boiled five days, dried in a bag and then grated and sifted, and placed two days in pans in an oven at a temperature of about 100°. The starch by this process is largely converted into dextrine, but not into glucose, and the flour has the reddish yellow color of dextrine. When kept for use, I believe it is more stable than the glucose preparations made by Liebig's formula which are found in the shops. But milk should be the basis of all infantile foods. Neither starch, dextrine or glucose sufficiently nourishes without it, but we may use one of these foods without milk for two or three days in unsettled states of the stomach with good result. If we use starchy food, it should be boiled several hours, which changes a portion of the starch into its soluble form, the first stage in digestion. Barley flour or oatmeal, thus prepared, will often agree with infants, but not so certainly as dextrinized starch.

I think that it is not best to feed infants habitually with fully digested food, for the stomach of the baby should be allowed to accomplish what it can without being overtaxed. Its normal functional activity produces a healthier state, and conduces to a better condition of the infant in my opinion, than when there is no functional activity ex-

cept that of assimilation, as is the case when fully digested food like glucose is given. The same rule applies, I think, to the digestive organs as to the muscles. If we insist on quietude of the muscles, they atrophy and become feeble. If we fully predigest the infant's food, it seems to me probable that glands or follicles which furnish the digestive ferments, lacking the needed stimulation, are likely to suffer deterioration in their functions and furnish ferments of poorer quality and of less quantity, than when the food is of a nature that requires some digestion. For this reason, I regard favorably the use of the dextrine rather than the glucose preparations obtained from starchy foods. It has long been the belief of some of the best authorities in the dietetics of infancy, that farinaceous substances, as barley flour, added to milk tends to prevent, by mechanically separating the particles of casein, the formation of large and indigestible coagula of this substance in the stomach. This has been one reason of my preference for the use of partially converted or partially digested starch instead of glucose in the feeding of infants, for glucose being completely soluble cannot have this mechanical action.

DR. L. A. SAYRE, OF NEW YORK:

Mr. President:—I was so fully impressed by the paper read by Dr. Woodbury that it seems to me to be the duty of this Association to take some further stand in advising the country at large in regard to the feeding of the rising generation. The wretched dosing that the majority of people have to stand in the way of food, is carrying our children to the grave by the score.

The Association should appoint a committee of competent men to investigate and keep before the public some facts in regard to this most important subject.

I therefore propose the following resolution: That the Committee on Dietetics be continued and empowered to enlarge its number, and that the Committee of Arrangements are hereby empowered to give this committee and its work a proper place in the program of the next meeting. (Applause.)

DR. BENJ. LEE, OF PHILA.:

Mr. Chairman:—I had already pre-

pared a motion to the same effect, and I should like to amend the resolution which has been offered by adding "That this committee be, and is hereby instructed to present a report at the next meeting embodying the general principles to be observed in a rational system of dietetics."

DR. SAYRE:—I accept the gentleman's amendment.

The amendment was put and carried, and the original resolution as amended was then put and unanimously carried.

SECTION OF DISEASES OF CHILDREN,

DR. WAXHAM, *Chairman*.

The first paper was read by Chas. W. Earle, M.D., Prof. of Diseases of Children, Woman's Medical College, and Prof. of Obstetrics, College of Physicians and Surgeons, Chicago.

This is a long and exhaustive article embracing many important points which we would gladly present if space would permit. We are, however, obliged to confine ourselves to a few brief extracts:

"The greatest mortality of all climes and among all nations is due to the lack of mother's milk. The question par excellence rising above all others is Infant Diet.

Baginsky, the latest German author on *Kinderkrankheiten*, says the difference between mother's milk and cow's milk is as follows: The water is about equal. Albumen, salts and butter are in greater quantity in cow's milk, and of sugar less. According to Dogiel there is not as much difference between mother's and cow's milk as has been formerly supposed. Out of cow's milk it is possible to manufacture a substitute which is in every essential equivalent to mother's milk. The greatest difficulty is to obtain good cow's milk. Two methods of preserving milk are used: First, it is condensed with sugar, and second, without this ingredient. The great trouble in the condensing process is that too much sugar makes it indigestible, and if you take milk of this kind and dilute it so that it can be digested, it is too weak. Peptonising milk is not a new idea, it is very old, and great difficulties have been found in bringing about the process.

We must acknowledge three facts:

1st. That mother's milk is the food *par excellence* for a baby.

2d. If this cannot be furnished, in large cities at least, a wet-nurse should be procured.

3d. If, for causes which I have or have not enumerated, the mother cannot supply the nourishment, and a wet-nurse cannot be procured, an artificial diet must be furnished. I have notes at this moment of three infants born at the end of six and a half months, where an artificial food, from necessity, has to be provided. I have succeeded in saving these lives on an artificial food. Cream is the basis, and barley-water the menstruum, to which is added a little salt, a little sugar of milk, and a small amount of lime-water. I have no use for the large nursing bottle, provided with glass and rubber tubings and brushes. I regard the ordinary nursing bottle with all these appliances, particularly for a prematurely born child, as a fraud and a snare. Such children should be fed from an ordinary ounce bottle with a rubber mouth-piece."

Dr. Earle mentions favorably several artificial foods, and evidently prefers, in the case of manufactured foods, those which are based upon cow's milk or cream.

Regarding cow's milk as a food alone, he says: "It forms, however, very heavy and dense curds, and in this respect is frequently extremely difficult to digest in a weak and undeveloped stomach. It is also poor in fat, and, with the objection urged above—namely, the tendency to form a hard, firm curd—in many cases comes to be, when used as a baby food, the exciting cause of many diseases, and remotely the cause from which emaciation, marasmus and death ensue. There is no reason why, however, when we know the food the cow is fed upon, that she is in a clean stable, and care is taken with the milk, and it agrees with the baby, that it should not be selected."

Regarding peptonising powders for predigesting milk, Dr. Earle says: "Theoretically, this process should produce nearly the correct food; but practically, I find that it disagrees with a considerable number of babies. The greatest objection is that it is not practicable in the household, because it requires scientific skill to properly pre-

digest the food, and many irregularities of digestion will certainly come from this preparation."

Dr. Earle mentions by name several infant foods which have proven useful in his experience, and concludes by saying: "I cannot designate particular foods, for reasons perfectly obvious. Every food has its advocates. Every food has its chemical analysis, which proves, without a shadow of doubt, that it is chemically and physiologically the only substitute for mother's milk, and yet every one of them sometimes fails us. I will admit that this is true of human milk in rare cases; but as a rule, let our advice be, in the order I mention: mother's milk, nurse's milk, mixed diet, cream foods, milk foods, malted foods, farinaceous foods, always pure and free from bacteria, and each preparation, whatever it may be, frequently inspected."

Among the artificial foods favorably mentioned by Dr. Earle is Carnrick's Food. We report his remarks regarding this food, because its formula so closely resembles that suggested by Dr. Atkinson in the following article; also that mentioned by the Special Committee on Dietetics in the report which we print in another column.

"I have carefully examined the process of manufacturing Carnrick's Food and believe that the greatest care is exercised in gathering the milk, and the attempt is made to insure absolute purity. The dairies from which this milk comes are under strict regulations, and as soon as the milk is received it is drawn into digestion tanks and brought to a temperature of 115 to 120°, and treated with freshly made extract of pig's pancreas. It is afterwards raised to a temperature of 210°, to entirely destroy any surplus pancreatic ferment, evaporated to the consistency of condensed milk, combined with dextrin and milk sugar; then evaporation continued and the product powdered and bolted.

This food is composed of forty-five per cent. of powdered milk, forty-five per cent. of dextrin and ten per cent. of milk sugar. It is partly pre-digested, so that the casein is as readily digested as it is in human milk. Dextrin is used in place of maltose for the following reasons: Dextrin is not fermentable

until changed into sugar. The youngest infant can supply sufficient ferment to digest dextrin, and when the process of digestion is under way, abnormal fermentation is not likely to occur. The milk is only partially pre-digested because it is not advisable to entirely digest any food before ingesting. It has been claimed by Prof. Vaughan that preserved dry milk, if properly done, will keep for any length of time; and it is claimed that of the many hundred thousand cans of this food which have been placed upon the market during the past three years not more than a dozen of them have been returned in bad order. Finally, it is claimed for Carnrick's Food that it is the only artificial food which will thoroughly nourish a child without the addition of cow's milk; that it approaches nearer human milk in composition and digestibility, than any other artificial food that has been placed upon the market up to this time. It is also claimed that it will agree with a larger number of children than any other artificial food.

Personally, the food has agreed with children in my practice and has certainly "bridged over" some who have not been able to take any other food. In my experience it is hardly rich enough, however, and fat in the shape of cream must be added."

THE INFANT FOOD PROBLEM.

Read by W. B. Atkinson, M.D., Member of the Committee of Dietetics of the American Medical Association.

To the general practitioner everywhere, there comes constantly the question, what means shall be employed to prevent the terrible mortality among infants deprived of their natural food, the mother's breast-milk. As it is in very many instances impossible to place the child outside the walls of a large city, this want of proper hygienic surroundings acts as one great factor in the production of disease. But perhaps the most active cause of disease is the exhaustion of the vital powers from the want of those articles, which being properly and readily assimilated, aid to maintain the body in its highest and healthiest condition. We all know that, other things being equal, that child which has been able to keep its system in the best state, its blood rich

and pure, its muscles plump and firm, is sure to pass through an epidemic of children's affections either entirely unscathed or suffering only from a slight attack, readily throwing off the disease and never being troubled with the sequelæ.

Defective nutrition, then, is the predominant factor in the causation of the fearful mortality everywhere observed among children. We need only point to the statistics of children's hospitals, foundling asylums and similar institutions to show the truth of this proposition.

To us, as physicians and sanitarians, as citizens earnest for the welfare of this great republic, this comes with powerful import. An additional fact also appeals to us, when we learn that the vast majority of these are native-born offspring, while those who survive are largely the children of foreigners. This is shown by the valuable statistics of such investigators as W. Nathan Allen. Though we are compelled to admit that other causes, and one a very potent factor, produce the great disproportion between offspring of natives and foreigners, yet it must be admitted that the truth of our original proposition is still evident, that defective vitality causes a vast majority of deaths among infants, and even in children of larger growth.

The latter fact is constantly shown by the great mortality which prevails, when by reason of short crops or other causes, the people are unable to procure the food needed to maintain their systems at par, and thus resist the inroads of disease.

It goes without saying that the infant should be raised on its mother's milk whenever possible. When, for any cause, this fails, then comes the question, What shall be the substitute? Abroad, the milk of asses and goats is in quite common use. Cow's milk being that most easily obtained, is most largely employed in this country. This being the fact, we next come to the consideration as to how the two kinds of milk differ and what is needed in order to cause that of the cow most nearly to approach that of the human being?

Cow's milk contains more proteid matter, more fat, more mineral matter

and less sugar, and as a rule in health, human milk is alkaline, while cow's milk is often slightly acid. One special difficulty with cow's milk is that its casein is more or less likely to form an insoluble mass by contact with the gastric juice, while the casein of human milk is in part a peptone and forms a very delicate coagulum when in contact with the gastric juice.

The object is always to produce a food for infants closely resembling in its composition mother's milk, and the nearer this is reached in all its details, the more surely will such food prove wholesome and valuable to the infant.

Our idea of a standard infant food, when produced would be as follows: Be sure to obtain the milk of a healthy cow. Just here we may premise that we do not believe in the common fallacy "one cow's milk." The mixture of the milk of several healthy cows is more likely to give an article of real value. Undoubtedly, many in this audience can substantiate the claim that it is most usually the pet cow, from which the milk is obtained which is put by for the sick baby, that receives all the banging, hurrying and pelting, and as we all know, is thus likely to yield a milk which may actually be poisonous in its nature. The best combination would be pure milk diluted with sufficient pure water to reduce the relative proportion of albuminoids and mineral constituents most nearly to that of human milk, then partially peptonise or digest it, and finally, add a soluble carbo-hydrate with sufficient alkali to produce as close a resemblance to breast-milk as may be. We must not forget that peptonising milk does not relieve us of the need of being sure that the milk is at the outset pure and fresh.

The milk supply of large cities has now become one of the great problems of the day. Churned in the cars to the city, then more thoroughly churned in the wagons over wretchedly paved streets, distributed in many cases from doubtful cans by persons of much more doubtful appearance as to their own cleanliness; the flavor often aided by the puffing of a cigar or filthy pipe on the part of the distributor, the article is received in many cases in a receptacle of equal doubt as to cleanliness, it is

placed perhaps in a food chest, or so-called refrigerator, exposed to the atmospheric contact of other articles of food; is it to be wondered that the milk becomes of a very doubtful form as to its propriety as an infant aliment?

To a certain extent, these objections are met by the new plan of delivering what is called "whole milk." The milk, immediately after being drawn from the cow, is very carefully placed in glass jars. These being quite full are hermetically sealed so that there can be no opportunity of churning or adulteration or the absorption of odors or disease germs.

For children who have passed the age of infancy, I have long been in the habit of urging the employment, particularly during hot weather, of what is called "evaporated milk."

Its claims were that it was milk from healthy cows, well-fed, and being of a quality greater than cream, churning or souring were less likely to occur during its transition to the city. Again, it was very much less ready to absorb or appropriate the odors, etc., to which it might be subjected. I have found this more easily borne by the child, and repeatedly I have been compelled to substitute it for the "condensed milk," where a certain proportion of sugar is added in order to preserve the article.

For these reasons, Prof. Vaughan urges the use of dried milk solids, that is, they can be transported without injury from any distance, and if properly prepared may be kept without putrefaction occurring. Now, if such pure milk from perfectly healthy cows was partially predigested by the process of peptonisation with fresh pancreatine, the temperature then sufficiently raised to destroy the remaining ferment, reduced to a powder by evaporation, and to this, dextrine added, thus supplying the carbo-hydrate, we would then be as near the production of a proper food for infants as might be possible in the absence of the breast-milk.

By recent researches, we have been taught that dextrine is the best form of carbo-hydrate, as it is non-fermentable and does not irritate the stomach of the infant, is easily assimilated and, unlike cane sugar or maltose, is not likely to take on acid fermentation.

Roasted wheat flour has long been employed and recommended as an article of food for infants, and particularly where diarrhoea is present. The reason of this is because this process converts the starch of the flour into dextrine.

The malt sugar or "Liebig Foods" are no doubt often valuable, particularly in infantile constipation, for their laxative effects; but are extremely liable to continue a diarrhoea or increase it. When these are used for their laxative effect, it is safer to use them alone rather than with milk, lest their fermentative tendency be aggravated by the presence of too great a quantity of albuminoid matter.

I am incited to this remark by the remembrance that the Liebig Foods do not by themselves meet the requirements demanded for infantile nutrition, unless with the addition of cow's milk. By an examination of the analyses of such mixtures, we find that they add no essential to cow's milk; nor do these foods act chemically upon the casein, nor physically, by reason of their solubility; and as I have before remarked, they may give rise to disorders of digestion, in consequence of the readiness with which they take on fermentation.

Farinaceous foods are of course out of the question, because of the absence of ptyalin in the secretion of the salivary glands in the earlier years of infancy. The addition of starchy matters to cow's milk, for the purpose of rendering the coagulum less dense and more easily broken up by the stomach, as has been recommended by some authorities, is wrong in principle; it really adds an indigestible element, which cannot fail to act as a foreign body, sure to produce fermentative acidity, diarrhoea and the usual train of evils.

The milk foods when diluted with water in accordance with directions, should correspond in nutritive value with human milk. Now that this correspondence should be more nearly perfect, they should also be partially predigested or peptonised, in order that the casein may be rendered more acceptable. It is also necessary that sugar in some form should be added.

In peptonising milk, it is of the greatest importance that the pancreatic

extract which is employed should be pure and fresh. The odor of some digestive ferments as furnished by the stores, is such as to give rise to the suspicion that they are already assuming the putrefactive tendency. In fact, it is a very difficult matter to preserve them, as it is well-known that the products of the pancreas are much more readily decomposed than any known animal substance. Hence the greatest care will be necessary that there shall not be the slightest possibility of the presence of putrefactive germs in any of these articles that may be employed to aid in the preparation of the diet of infants. The peptonising of milk, although apparently a very simple matter as practised in the laboratory, yet is scarcely feasible in the household.

Another point is of great importance. Malt sugar is eminently prone to absorb moisture and hence it should not be combined with dried milk, and then put in bottles or other form of package for family use, because, as these packages are only partially used at one time, the balance is extremely liable to absorb moisture, resulting in fermentation; and this is more especially the case in hot weather or when kept in a hot room.

We cannot too strongly urge upon all who are compelled to prepare food for infants, the great, the imperative necessity of using only water that has been boiled. To the medical man, the reason is plain, yet it would not be amiss for him to explain in each instance why this should be done. Just here it is equally important to see that the water is not cooled by the addition of ice, as we may thus return at once to the water the very organisms which the boiling was intended to expel. I am impelled to this remark by the remembrance of an inspection just made for the State Board of Health of Pennsylvania. The subject of complaint was the ponds from which the ice was obtained to supply the demands of a large town. These ponds were filled with water from a stream, really nothing but a drain for a full graveyard, one or more slaughter-houses, a large number of cess-pools which were in constant use, and a large area of swamp land.

In diluting any form of infant food, we should give positive definite quantities. Undoubtedly all of us have encountered many cases where the child was really starving, while apparently receiving a large quantity of fluid. The fact is that the dilution had been carried too far.

It is unnecessary for me to occupy your time with further points as to times for feeding or of necessity for using bottles, etc., etc.

Before closing, I may remark that in my investigation of foods for the preparation of a paper which may be read elsewhere, I received from my friend Chief Medical Purveyor Baxter of the United States Army, a tabulated analysis of some fifteen forms of foods. Of these, only four contained more than ten per cent. of nutritive material, thus showing that even here we are likely to be deceived, and to be employing an article as useless for its proposed purpose as the too largely diluted food of the infant already mentioned.

In conclusion, permit me to say that it has long been my custom not only in my practice, but also in my teachings, to urge the giving of less medicine, using it only when imperatively demanded, and to insist upon the value of proper hygiene and proper nourishment, believing that these alone in many cases will at once place the child on the road to health, and if persevered in, will, as a rule, maintain it there.

DISCUSSION.

The discussion was led by Dr. W. S. Christopher, of Cincinnati. He found condensed milk a valuable food for children. With cream mixtures his experience has not been satisfactory. He used at the Home for Foundlings, cow's milk diluted with lime water for children who were comparatively healthy. Several years ago he tried peptonising milk, but it was a total failure and he was obliged to stop it in order to save the life of the child. He did stop it and the child lived. In consequence of this, peptonised milk grew in great disfavor with him. There can be no doubt whatever but that pancreatic extracts are likely to undergo putrefaction, that they are things extremely proper for putrefaction, and it is consequently a fact on the face of this, that they are

improper food for infants. He stated that he could not agree with Dr. Atkinson in his statement that dextrine could not ferment.

Dr. Christopher expressed his opinion that to properly nourish a child at different times and under different conditions it would be proper to study the condition of the stools and its general condition, and then adopt a food whose composition was indicated as proper nourishment at such times. For instance, if we have a stool of a putrid character, we must refrain from albuminoid substances and when we find the stool sour, we may be sure that acid fermentation is the cause. He said dextrine was preferable to starch as an addition to milk, because it is in the intermediate state between starch and glucose.

Further discussion of this paper was conducted by Dr. I. N. Love, Dr. Jones and Dr. Larrabee, all of which was very interesting, and which we shall be obliged to defer publishing until another issue.

LONDON LETTER.

SIR WILLIAM GROVE, who has been for sixteen years a judge of what used to be called the Court of Common Pleas, was, before he practised at the bar, a professor of physics, and earned a great reputation by his work on *The Correlation of Physical Forces*, written when the doctrine was yet in embryo. He has lately given a "Friday-night discourse" at the Royal Institution, on *War in Nature*, in which he developed the principle of "Antagonism" as complementary to his previous doctrine of correlation. Antagonism, he urged, was not the baneful thing which it was commonly deemed to be; but a necessity of existence, and of the organization of the universe, and producing as much good as evil. Without it, life would be impossible; and it was inevitably associated with unorganized matter, no less than with organized matter and with sentient beings. This universality of antagonism had not, he thought, received sufficient attention; too great stress having been laid on the element of force, and too little on that

of resistance. He contended that the condition of antagonism was as essential to Ormuzd as to Ahriman. He illustrated his point by references to astronomical phenomena, to certain photographic experiments, and to vegetable and animal life. All persons who are concerned with the attainment or preservation of health in youth and adult age have become aware that it is only to be had by learning endurance and cultivating the powers of resistance to external forces. But though Sir William Grove had nothing very novel to say about the struggle for existence, and of the good results to mind and body of having to work for one's living, it was interesting to see these familiar doctrines treated by the veteran physicist as part of a great natural law pervading the whole universe. Dr. Samuel Johnson, who liked occasionally "something craggy to break his mind against," would perhaps have afforded some additional observations to Sir William Grove, who, towards the conclusion of his address, which was listened to by a select and appreciative audience, found a fresh instance of his law of antagonism in the internal mechanism of organized beings. He referred especially to the internal struggles of the heart and arterial coatings; of the forces at work in breathing; and to the battle in the blood, between the white corpuscles and the bacteria, so well described by Metschnikoff.

THE LINNEAN SOCIETY.

The centenary of the Linnean Society will be celebrated on May 24. A eulogy of Linnæus will be pronounced by Professor Fries, who is the present occupant of the chair of botany in the University of Upsala. Three other eulogies will also be delivered: on Robert Brown, by Sir Joseph Hooker; on Charles Darwin, by Professor Flower; and on George Bentham (joint author of the *Genera Plantarum*), by Professor Thiselton Dyer. The Society has also instituted an annual gold medal, to be presented to a distinguished botanist and zoologist on alternate years. Two medals will be presented at the centenary festival: one in botany, to Sir Joseph Hooker, well known for his expeditions in the Himalayas, and as

director for many years of the National Botanical Gardens at Kew; the other, in zoology, to Sir Richard Owen, the palæontologist, long the superintendent of the natural history department of the British museum.

DE CHAUMONT.

Dr. De Chaumont, who died on April 18, had been, for the last year or two, almost withdrawn from active life, although he had continued to discharge the duties of his chair of Military Hygiene in the Army Medical School at Netley. He was a man of remarkable intellectual powers and great erudition, and was looked up to with a peculiar reverence and affection by all who were engaged in hygienic work or the public sanitary service. He never, however, attained, with the medical profession at large, the reputation which he really deserved. His sphere was comparatively small, and he was never appreciated at anything approaching his right value by the crowd of dunderheads who draw large salaries for doing nothing (or worse) in expensive offices in the most fashionable part of London—a collection of civilian nonentities who collectively form the "War Office," so-called.

OVER-POPULATION OF THE TOWNS.

The rapid increase of the population accumulated in towns in this country, and the alleged growth of the class of unskilled laborers in towns engaged in trades which barely afford a livelihood, even when work is plentiful, has been engaging a good deal of attention lately; Prof. Huxley, and many other distinguished writers have taken part in the discussion without, however, contributing any solution. A "Committee for inquiry with the subject of over-population," has been formed, and will hold conference for the discussion of the subject on Mondays during May and June. Recent investigations have shown that there is a very much larger pauper immigration into this country than was generally supposed, and it is highly probable that some legislation to check this, similar to that already enforced in the United States, will be required. It would seem that a very large number of foreigners,

chiefly, it is said, Polish Jews, have been coming over for many years past, and have gone into the tailoring and boot-making trades, with the result of very greatly depreciating wages. A select Committee of the House of Lords is at present taking evidence with regard to the "Sweating" system in the tailoring trade, and has elicited facts of a most harrowing nature; the House of Commons has also appointed a Select Committee on emigration and immigration, which has held several sittings.

LOOSE BODIES IN JOINTS.

An interesting discussion as to the mode of origin of loose bodies in joints has recently taken place. The subject was practically raised by Professor Humphry, of Cambridge, who made some remarks on a case shown to the Medical Society, and subsequently wrote a letter to the leading medical journal, more fully expressing his scepticism with regard to the possibility of the formation of loose bodies by the detachment of portions of the articular cartilage. The result of the discussion which has ensued seems to have been to prove that a loose cartilage may be thus produced, either by the breaking off of a piece of articular cartilage with or without bone, by a sudden wrench, or by the detachment of a fragment by a process of quiet necrosis. A third way by which a loose cartilage may be produced is that which Prof. Humphry was disposed to regard as the invariable one; tufts or processes of synovial membrane, which may assume various forms, grow into the joint; as they naturally contain cartilage cells, they may become the seat of cartilage and of ossification of cartilage, they may become pendulous as they grow larger, and finally, by rupture of the pedicle they may become loose in the joint. This is Professor Humphry's theory, and it is ingenious, if a little far-fetched; doubtless the majority of the unorganized or fibrous loose bodies are thus formed.

SPLENECTOMY.

Sir Spencer Wells has reported a successful case of splenectomy for wandering spleen; the patient was an

unmarried woman aged 24. In his remarks on the case, when reporting it to the Royal Medical and Chirurgical Society, he gave a table prepared by Prof. Adelman, of all the cases reported up to June, 1887; he had collected nine cases in which the operation was performed for wandering spleen, with only two deaths; but the general mortality of the operation, for all causes, as shown by the table, was 71 per cent. Thus it has been done nineteen times for hypertrophy with leukæmia, with only one recovery; fourteen times for "simple hypertrophy," also with only one recovery; and four times for malarial hypertrophy, again with only one recovery. Sir Spencer Wells however thought that, as the results had gone on improving during the last thirty years, we might hope, as experience as to the selection of cases and the mode of operating increased, that better results might be obtained, and pointed out that the general mortality of ovariectomy thirty years ago was about 60 per cent. As to the comparatively favorable results of removing wandering spleen, Mr. Meredith and Mr. Howard thought that while the unnatural mobility increased the sufferings of the patient, it diminished the danger of the operation, probably because the pedicle was larger; and the latter surgeon suggested that there was consequently less disturbance of the sympathetic plexuses, and easier manipulation. Cystic spleen also showed well in the table, four cases with only one death having been reported. There was a general accord that a moderate amount of leukæmia (or leucocytosis) need not prohibit the operation in a case otherwise suitable.

FAILURE OF ELECTROLYSIS IN UTERINE FIBROIDS.

Two cases of fibroid tumor of the uterus, in which after failure of the electrolytic method of treatment, hysterectomy had been successfully performed, were recently reported to the Gynecological Society. Mr. Reeves, who had performed the operation in one of the cases, while expressing the opinion that the electrolytic treatment, when unsuccessful, might lead to loss of valuable time, added that since hysterectomy

was a very dangerous operation, electrolysis ought to have a fair trial.

MERCURY HYPODERMICALLY.

There is generally a good deal of delay in the adoption, and even in the testing, of therapeutic novelties in this country. It is only now that we have a report of anything like a systematic attempt to test the clinical value of the intra-muscular injection of mercury in the treatment of syphilis. Mr. Astley Bloxam, surgeon to the Lock Hospital, having used the method, both at the hospital and in private, has become an ardent believer in its efficacy. He uses a solution of sal-alembroth, containing two grains in the dram, as he had found that the preparation of calomel in glycerine (1 in 10), and calomel in vaseline (1 in 5), recommended by Lewin and by Sigmund, caused much pain, and sometimes gave rise to troublesome abscesses. Mr. Bloxam injects ten minims of the sal-alembroth solution (gr. $\frac{1}{2}$) deeply into the muscular substance of the buttocks once a week. The primary sore, he said, had generally healed by the second injection, and the secondary symptoms soon after cleared up; affections of the throat and glands remained, but it was only necessary to give the injection once a fortnight, and later once a month, the treatment being continued altogether for about a year or eighteen months. The pain following the injections was not severe, and there was very little induration unless bleeding took place. Mr. Bloxam spoke in high terms of the success of his method; but the weekly injection of a soluble salt like sal-alembroth appears to present some differences from the injection of a very slowly dissolvable salt, such as calomel, and some disadvantages when compared with it.

NOCTURNAL GLOBUS.

Dr. George Johnson, F.R.S., describes a form of *globus hystericus* occurring at night. At some time during the night, generally on first falling asleep, the patient is awakened by a fearful sense of suffocation. To obtain relief, the patient will get up and rush to an open window. He says that an opiate given for a few nights is very efficacious against this distressing symptom.

He mentions pil. saponis co., gr. v, (= opium, gr. j.) as a form which he prefers. The disorder is very often observed in men.

MINT AN ANÆSTHETIC.

Peppermint water, the last new antiseptic, is said to be, like carbolic acid itself, a useful agent for producing anæsthesia, or, at any rate, diminishing hyper- or dys-æsthesia of the unbroken skin. Dr. Armand Routh reports very favorably on its use in pruritus pudendi, especially in the neurosial form observed frequently during pregnancy, or at the climacteric. He orders a teaspoonful of borax and five drops of ol. menth. pip. to be put into a pint bottle of hot water, and well shaken; the parts affected to be freely bathed with a soft sponge. The soothing effect often lasts for many hours.

NEW METHOD OF OBTAINING VACCINE.

Dr. W. C. Grigg states that he has vaccinated nearly three thousand infants, with only one complete failure, with lymph obtained in the following manner: A small bead of pure glycerine is dropped on the centre of each pock, and the top of the vesicle is gently rubbed with a smooth blunt instrument (e.g., the round glass head of a shawl-pin). In two or three minutes the drop will have increased to double its size, if the vesicle contained a good supply of lymph, and may be used for vaccinating in the ordinary way.

STRYCHNINE TO PREVENT POST PARTUM HEMORRHAGE.

In cases in which post-partum hemorrhage has occurred after previous pregnancies, several practitioners have recently strongly recommended the administration of liquor strychniæ, B. P., \mathfrak{m} iv or v, twice or thrice a day for a month or six weeks before the expected date of the confinement. (Liquor strychniæ is termed liquor strychniæ hydrochloratis in the new edition of the *British Pharmacopœia*, and its strength is there given as 1 in 100.)

SALINES IN TYPHLITIS.

Dr. Suckling, of Birmingham, advocates the use of saline purgatives in moderate doses, with plenty of water, in peritonitis associated with typhlitis

due to faecal retention. He has related the case of a young man, aged 21, admitted into the infirmary with peritonitis of three days' standing. The routine treatment with opium and belladonna was first tried; but as the vomiting and pain continued, half-drachm doses of sulphate of magnesium and sulphate of sodium, with ten minims of tincture of belladonna, were administered every four hours. The only food allowed was peptonized milk and beef-tea. The patient quickly began to improve, and after the treatment had been continued for about a week he was "apparently quite well and free from fever." He eventually made a good recovery.

The crematorium at Woking, the great cemetery near London, has been very much made use of lately; no less than eleven cremations having been performed within the last three months. And it is proposed to complete the building by the erection of a chapel, waiting-rooms and a lodge.

Dr. Thomas Keith, extra-surgeon for the treatment of ovarian diseases to the Royal Infirmary, Edinburgh, has given up his appointment there, and has settled in London. He is accompanied by his son, Mr. Skene Keith.

It is stated that the law courts will again be called upon to adjudicate upon a surgical quarrel; a difference having arisen between Mr. C. E. Jennings, until recently assistant-surgeon to the Cancer Hospital, and some of his former colleagues.

The Marshall Hall prize, founded to perpetuate the memory of Dr. Marshall Hall, one of the founders of modern neuro-pathology, has been awarded to Dr. W. H. Gaskell, F.R.S., lecturer on advanced physiology in the University of Cambridge. Dr. Gaskell has earned this honor by his important writings and original researches on the sympathetic nervous system.

DAWSON WILLIAMS, M.D.

THE conditions formulated by the Committee on Infant Foods are approximated more nearly by Carnrick's Food than by any other with which we are familiar. We refer the reader to the description of its manufacture in the abstract of Dr. Earle's paper on page 537.

REVIEWS AND BOOK NOTICES.

ATLAS OF VENEREAL AND SKIN DISEASES, WITH ORIGINAL TEXT BY PRINCE A. MORROW, A.M., M.D. New York: William Wood & Co.

The illustrations are from the works of Kaposi, Hutchinson, Neumann, Fournier and Hardy, Ricord, Cullerier, Besnier, Vidal, Leloir, Morrow, Keyes, Otis, Hyde, Piffard and others. The first fasciculus contains five plates, showing varieties of chancroid in both sexes; the second takes up in addition primary syphilis; the third and fourth deal with the syphilides.

The plates are well executed, the drawing clear and distinct, and the coloring vivid and yet natural.

The work is issued in fifteen monthly parts, at \$2.00 per part. It is sold only by subscription.

Twenty pages of text accompany each part, consisting of a description of the plates, and of a practical treatise on venereal and skin diseases. The typography is excellent. For a work of this class the price is very small indeed; and the enterprising publishers deserve the cordial support of the profession for their liberality.

If any of our readers desire to examine these beautiful plates, they can be seen at the office of this journal.

A MANUAL OF DISEASES OF THE NERVOUS SYSTEM. By W. R. GOWERS, M.D., F.R.C.P., etc. American Edition. Published by P. Blakiston, Son & Co. 8vo, pp. 1357. Price, \$6.50.

The bulk of the volume before us may give some idea of the importance which neurology has assumed of late. The book is praiseworthy as to typography, and the three hundred and forty-one illustrations are mounted on paper which does them justice.

The work is essentially practical; "hypothesis being employed only where it is indispensable for the proper grasp of facts." In his classification he acknowledges the objections which lie against any and every system, and groups the affections under the heads of coarse organic, structural, nutritive and functional.

Speaking of the treatment of sciatic

ica, he advocates rest, salines in gouty cases, and treatment of the cause. In acute cases he applies hot linseed-meal poultices along the course of the nerve, and gives small doses of mercury. Counter-irritation cannot be used too early, and may cut short the attack if applied over the seat of pain, and following it up as it changes its location. Spontaneous pain is only relieved by sedatives, of which morphine is the surest, but cocaine (injected at the seat of pain) often relieves as effectually. Acupuncture gives but temporary relief. The most useful sedative liniment is one of belladonna, chloroform, and aconite. Electricity is useful in the later stages. In very obstinate cases, nerve-stretching has done good, chiefly by counter-irritation and by enforcing rest. No mention is made of the use of theine.

In locomotor ataxy he prefers arsenic to all other drugs. To relieve pain he uses morphine, cannabis, and sometimes cocaine. The only external application recommended is chloroform, sprinkled upon spongiopiline. Langenbach's remarkable case is noted, in which the sciatic nerve was stretched; unaccountable improvement in both the pains and the tabetic symptoms following; and also the subsequent unsatisfactory history of this procedure. Throughout, the work is thoroughly well done; the descriptions clear, the directions for treatment sensible. We commend the book to our readers.

LETTERS TO THE EDITOR.

DIAGNOSIS AND TREATMENT WANTED.

EDITOR MEDICAL TIMES:

Mrs. R., aged 21 years, married eight months. Complains since Christmas of pain at the articulation of the jaw. This pain has been present constantly for five months. Her appetite is good, bowels constipated, pulse normal. She also has pain in the back, between the shoulders, which is not increased by pressure. Has a bad taste in the mouth in the morning. She has been treated for the pain in the jaw, without benefit. She is unable to open the mouth widely, or to chew hard bread. There seems

to be a lack of power of the masticatory muscles.

G. W. C.

[The pain is probably due to a diseased tooth; the other symptoms to constipation. Examine the teeth and report.—Ed.]

Editor MEDICAL TIMES:

I noticed an article in the MEDICAL TIMES, published by you, on "Epilepsy Due to Ear Disorder." I have a patient four years old suffering with this disease. He has an attack every other day, but they are of short duration, lasting but a few seconds. He was first taken with a violent cold, which settled upon his lungs; this is now relieved, but the epilepsy continues. His general health is as good as ever. Please let me know what would be your treatment in such a case.

H. C. B.

[We would give full doses of quinine suspecting malaria; especially as children often have convulsions where adults would have chills.—w.]

MISCELLANY.

SUGGESTED MEDICAL RECIPROCITY WITH THE UNITED STATES.—In the House of Commons, last week, Mr. A. Morley asked the Vice-President of the Committee of Council whether registered medical practitioners in the United Kingdom were afforded privileges of practising in the United States of America; and whether any steps had been taken, or were in contemplation, by the Privy Council, under Section 17 of the Medical Act, 1886, in the direction of similar privileges being given to the legally qualified American practitioners who might be desirous of practising medicine in the United Kingdom. In reply the Vice-President of the Council said that no statement has been received by the Privy Council from the Government of the United States showing the privileges afforded to registered medical practitioners of the United Kingdom to practice in America, nor has request been made by that Government for the application of Part II of the Medical Act, 1886, to America. If America "means business," it ought to adopt a law which would authorize the branding of medical qualifications with

the Government stamp of sufficiency, and then Britain would be only too glad to accept perfect reciprocity. The difficulty about a reciprocal recognition of medical qualifications between this country and the States is that there does not exist in America any such thing as an official guarantee of the quality of a license such as is here provided by the Medical Register. In America each province recognizes what it pleases, and very often the things which are called qualifications to practice are of so low a grade that they could never receive the *imprimatur* of the British Government or be admitted to any rights of practice at this side of the Atlantic. The Medical Council, under the recent Act, has power to admit foreign or colonial qualifications to registration, but only if those qualifications represent, at least approximately, the same standard of education as is guaranteed by the British licensing bodies; therefore its choice of American degrees for recognition is greatly limited.—*Med. Press and Circular*.

Prof. Jas. H. Stebbins, Jr., read a paper before the "American Chemical Society," March 2, 1888, "On the Relative Values of a few Pepsin Tests," in which the ordinary mode of testing pepsins is criticized because of its not being based on the peptonizing power of pepsin as distinguished from the dissolving action of both the pepsin and added hydrochloric acid. As the "Kremel test" measures only the peptonizing action of pepsins, exclusive of all intermediate products, the professor strongly urges its adoption, and appends the quantitative results he obtained by this method—arranging the pepsins in the order of their peptonizing power, the most powerful standing first and the weakest last, as follows:

"Ford's,	Finzelberg's (Saccharated?),
Golden Scale,	Hawley's Saccharated,
Boudault's,	Merck's Plain Soluble,
Jensen's Crystal,	"Pure Scales,
Scheffer's Saccharated,	"Lamatsch, Pure,
Fairchild's,	Kidder's French."

Jaccoud prefers salicylic acid to reduce the fever of consumption. He gives thirty grains daily for three days, twenty-three grains daily for three more, then stops for two days, and resumes as before. If the fever falls, fifteen grains are then given daily.

THE newcomer in the field of medical journalism announced in our last issue is *The University Medical Magazine*. The editorship will be in the hands of George E. de Schweinitz and Hobart A. Hare, aided by an advisory committee from the University staff. With the influence of this great institution of learning at its back, the wealth of clinical material from which it can draw, and the capable management of Dr. A. L. Hummel as publisher, the new journal certainly starts with fair auspices. We wish it success.

Dr. Oltramere records a very remarkable case of spontaneous gangrene in the external genitals of a man addicted to the immoderate use of alcohol, without any other apparent cause, which ended favorably under the local use of iodoform ointment. The prognosis in the case is not so grave as the extensive loss of tissue would lead one to expect, where there is no complication. —*Revue Medicale de la Suisse Romande*.

THE firm of A. A. Marks issues a treatise upon artificial limbs, etc., which contains much information of value to physicians. The experiences of this firm, which has sent out over 8,500 artificial limbs, is given as to the amputations which favor the fitting of such limbs. The book makes a volume of 397 octavo pages, profusely illustrated. With it is sent a chart containing directions for measuring and ordering these limbs, etc.

NOTES FROM THE BALTIMORE CLINICS. —In a case of diabetes mellitus which had resisted opium, codeine, strict diet and other measures, rapid improvement was produced by one-twenty-fourth of a grain of bromide of arsenic three times a day, prescribed by Rohé.

Rohé treats internal hemorrhoids with fluid extract of hamamelis and glycerine; half a drachm of each every four hours. The remedy is promptly effectual in uncomplicated cases.

At Bay View Hospital, Rohé uses solution of bichloride of mercury 1:2000 to 1:1000 for chancreoids. Pledgets of absorbent cotton are moistened with the solution and kept in constant contact with the ulcers. The effects are

striking. Suppuration is promptly arrested and cicatrization rapidly follows.

PNEUMONIA IN CHILDREN.—Child of 22 months; admitted May 1; has had persistent cough; temperature ranging from 100.° to 103°; dulness, but not very marked, at base of right lung; mucous râles at same spot. Diagnosis, catarrhal pneumonia. Dr. Stryker said that this case illustrated the fact that very young children rarely have the symptoms of pneumonia so well marked as they are in adults. Instead of complete dulness at the affected spot, there is merely a modified dulness, and auscultation shows that some air is entering the vesicles at this point.

Before being admitted the child had suffered from bronchitis. This has extended to the air cells, and now the child has both bronchitis and pneumonia. As for treatment, generally the simpler the better.

You might try a mild mustard plaster, but do not leave it on until there is any positive irritation. Turpentine stupes are also good.

He is not in favor of poultices on account of their soggy, and the sudden changes of temperature to which the child is subjected through the changing of the poultices. He prefers a thick packet of cotton around the chest.

The treatment given was a mixture of mistura glycyrrhizæ comp., ammonii chloridum, syr. senegæ, and syr. ipecac.

A little paregoric was added to a dose when thought necessary, on account of the cough.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING MAY 12, 1888.

PASSED ASSISTANT SURGEON A. G. CABELL, detached from "Adams," proceed home and wait orders.

SURGEON M. H. SIMONS detached from Naval Academy and to practise - ship "Constellation."

MEDICAL DIRECTOR P. J. HORWITZ, leave of absence for six months to leave the United States.

A Naval Medical Examining Board is now in session at the Naval Hospital, Philadelphia, for the examination of candidates for admission to the Medical Corps of the Navy. There are 11 vacancies in the list of Assistant Surgeons. Permit for examination can be obtained on application to the Secretary of the Navy.

THE DYNAMOGRAPH.

AN INVENTION WHICH IS THE ONLY RIVAL
OF THE TELEGRAPH AND THE TELEPHONE.

After eight years of patient, unremitting labor, eight years of hope and disappointment, James F. McLaughlin, a young electrician of Philadelphia, has succeeded in perfecting a machine which promises to be the most formidable rival that has yet arisen against the Bell Telephone Company, as well as against the entire system of modern telegraphy.

Not long after the invention of the mechanical type-writer, Mr. McLaughlin became convinced that its efficiency could be increased by the application of an electrical current, so that as the writing was made upon one machine, the same writing would be instantly duplicated upon another similar machine at any distance separated from the first.

It would be telling the old story of the trials of every inventor to go over in detail the history of McLaughlin's persistent plodding; suffice to say that with indomitable perseverance he stuck to his self-appointed task until his thoughts became crystallized into crude mechanical shape. With this and an exposition of his projected plans, he succeeded in interesting capitalists in the enterprise. Having now the necessary means to carry on his experiments, the progress was rapid, and as the machine grew apace, patents of a broad nature were applied for and granted, for it was fully realized that the time for an electro-mechanical type-writer had come, and these business men foreseeing the immense future open for a successful instrument took every pains to make it perfect, and gain possession of basis patents with indubitable claims of priority and fundamental purport. At last the machine was finished and the patents granted, and now the question before these men is that of the successful introduction of the machine, that is seen to be wanted, into the business of the world.

In appearance the instrument is of the ordinary mechanical type-writer form, is similarly worked from a key-board, is operated either mechanically or electrically, and prints on any sized paper. It has one advantage that will immediately impress every one familiar with the existent type-writers, which is that the traveling carriage is *automatically* moved *backward* as well as actuated forward, thus abrogating the annoyance and loss of time in pushing the roller back at the end of each line. As a me-

chanical type-writer it will compare with any now before the public, and its ease of action together with its reversing mechanism, make it especially valuable. But coincident with these mechanical functions it has, by the mere movement of a switch, the increased efficiency of printing the message upon another machine separated by any distance from the first, so that the person sending the message, and the one receiving it, have each a copy, precisely alike in every respect. Thus the machine is at once a rival to the Type-writer, the Telephone, and the Telegraph, with great advantages over each of these instruments, and its place is that of the most subservient of servants to the use of man. The Telegraph can only be worked by a skilled operator; while the Dynamograph can be used by a child. The Telephone keeps no record of its service; while the Dynamograph *prints* the message simultaneously at both ends of a line, and prevents all controversy. The existent Type-writer can only be used as a type-writer, while the Dynamograph is at once a Type-writer, a Telephone, and a Telegraph. Thus there is no doubt that this latest invention of this fertile age of invention is the greatest of all; and strange to say, it seems to be the last development to be made, for as the Telegraph is a system of sound, and practically owned by a monopoly, the Telephone a system of speech, and also owned by a monopoly, there is no other way in which to transmit intelligence than by a system of printing, such as exploited by the Dynamograph, and this company with its patents has covered that whole field for their benefit.

The men interested in the Dynamograph are of a national reputation and give it a business position compatible with its own merits. The Hon. John Russell Young, ex-U. S. Minister to China, is the President of the Company, and Hon. W. W. Ker, ex-Assistant Attorney-General of the U. S., is the Attorney.

The office of the Company is at 140 South 4th Street, Philadelphia, Pennsylvania, U. S.

[This instrument appears to be so peculiarly fitted for the physician's needs, that we have obtained the above description from the owners to place before our readers. The advantages over the telephone are that the message may be sent at any time, even if there is no one present to receive it; and when the physician returns to inspect his instrument, he will find there all messages sent in his absence. Furthermore, by an ingenious arrangement, no other person using the line can read the message except the one for whom it is intended.—Ed. P. M. T.]

PHILADELPHIA MEDICAL TIMES.

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CLINICAL LECTURE.

ENLARGEMENT OF THE THYROID GLAND; THE DIAGNOSIS OF EXOPHTHALMIC GOITRE; INTERCOSTAL NEURALGIA OF LONG STANDING; SCIATICA WITH ANÆSTHETIC LESIONS.

Delivered at the Hospital of the University of Pennsylvania.
BY WILLIAM PEPPER, M.D., LL.D.,
Provost, and Professor of the Theory and Practice of Medicine and of Clinical Medicine.
Reported by William H. Morrison, M.D.

GENTLEMEN: The first case which I bring before you illustrates a practical point of frequent occurrence. This young girl as you see is very anæmic. This is shown by the pallor of the lips and cheeks and by the whiteness of the conjunctivæ. She comes to us with the statement that she has a swelling in the neck, and on examination, it is at once apparent that there is enlargement of the thyroid gland, although the degree of enlargement is not great. We often meet with such cases as this and the question arises as to the nature of the thyroid enlargement. It is in just such cases that we find Graves' disease, or exophthalmic goitre, developing. This is, as you know, a neurosis of the cardiac plexus

and of the branches controlling the circulation through the thyroid arteries. It occurs in anæmic subjects with depressed vitality. Here then is a subject in whom exophthalmic goitre might very plausibly be suspected. In this affection, it is sometimes the protrusion of the eyeball which is first observed, and the patient acquires a peculiar staring expression. Sometimes it is the enlargement of the thyroid which is first noticed. Sometimes it is the excited cardiac action, without which we may say exophthalmic goitre never exists, that first attracts attention.

When, therefore, enlargement of the thyroid gland presents itself in a subject, who on other grounds might be supposed likely to have exophthalmic goitre, we first consider whether the associated symptoms of protrusion of the eyeball and excited cardiac action are present and whether or not the enlargement of the thyroid is such as is found in that affection. In this girl, there is clearly no protrusion of the eyeballs. The appearance of the eyes is entirely normal. Applying von Graefe's test, I direct her to look up and then down. The lids follow the movements of the globes perfectly. When there is only slight prominence of the ball, so slight as not to be apparent on inspection, it will be found when the globes are

rotated vertically that there is a slight inequality in the movements of the eyeball and of the lid.

Studying next the action of the heart, I find that the pulse, which we might reasonably expect to be disturbed from the excitement of coming before the class, is quiet, tranquil and entirely regular, eighty-four in the minute. The cardiac sounds are normal. There is evidently no cardiac excitement. The absence of exophthalmos and of cardiac excitement at once shows us that this is not a case of exophthalmic goitre, but one of ordinary goitre appearing in an anæmic girl.

Nor does the character of the thyroid enlargement agree with that which is found in Graves' disease. In that affection the enlargement is peculiar. It is not simply a swelling of the gland, usually involving both lobes symmetrically, but it is a swelling associated with pulsation and with thrill, and when the enlargement becomes at all marked, with a murmur. Here the thyroid enlargement is soft, without the slightest pulsation or thrill. There is no anæmic murmur heard over the heart, nor is a murmur to be found over the enlarged gland. This, with the other points in the case, serves to positively exclude Graves' disease.

I need not say to you that an accurate diagnosis in these cases is of great importance. Graves' disease when recognized in its early stage may often be checked, and for its treatment, it frequently requires a cessation of occupation and a change of the surroundings and circumstances of the patient. In the present case, however, I have no hesitation in saying that a course of iron combined with the local application of tincture of iodine or of an ointment consisting of the compound ointment of iodine with protiodide of mercury, or possibly with small doses of iodide of potassium internally, will remove the anæmia and cause a disappearance of the thyroid enlargement.

INTERCOSTAL NEURALGIA.

The next patient, a farmer, aged 39 years, comes to us with the statement that he has had a pain in his right side for a number of years. He gives the following history: His general health is good. The pain first appeared three

and a half years ago, and followed a blow on the side by the handle of a plow. The blow was a heavy one, nearly taking his breath, and the pain appeared at once after it. The right arm was also affected. There was no fever and no loss of flesh. He also had pain around the base of the left chest. He has always had some pain every day, except during last summer, when he was pretty free from pain until he again injured himself by over-reaching. Changes in the weather have had no effect upon the pain. It has come at no regular intervals, and has had no connection with eating. There is no shortness of breath and no cough. He has not been especially liable to take cold since the pain appeared. There is no palpitation of the heart. During the past winter the pain has been limited to the right side in the region of the nipple. The pain around the base of the left chest disappeared a year ago. While there is more or less pain constantly present, he also has paroxysms in which it is much more severe.

We learn that the pain followed an injury. This must have been of a very superficial nature. There could scarcely have been any organic trouble without more marked disturbance of the general system than seems to have been present. We might think of aneurism; but then there should have been marked disturbance of cardiac action, with a great deal of shortness of breath on exertion. Pressure would not explain the pain radiating around the base of the left chest. Chronic pleurisy, with perhaps pleural effusion, might suggest itself; but in that case there should be a history of dry cough, shortness of breath and dyspnoea, increased by exercise. The length of time which the affection has lasted is also against this view. In three and a half years the general health would have suffered more than it has.

We shall next proceed to a physical examination of the chest. The heart is in the normal position, and there is no cardiac murmur. The expansion of the two sides of the chest is about equal, and normal. There is good resonance on both sides, anteriorly and posteriorly. In the axillary region of the right side, the respiratory murmur is a little weak, and there is a small patch

where superficial friction râles are heard. There has evidently been a little plastic pleurisy, and it is quite possible that there may have been at one time a little serous effusion. The extent of inflammation has not been sufficient to interfere with the breathing, or to impair the general health. Following the blow, there was induced an irritative condition of the tissues in this region, affecting the pleura, but chiefly involving, I have no question, the sheaths of the intercostal nerves. And I believe that the main trouble from which this patient has been suffering has been intercostal neuralgia of traumatic origin. The fact that there was also pain on the opposite side, would indicate that part of the neuralgia was due to idiopathic causes.

There is then no serious lesion here. The cause is adequate to explain the symptoms, and I think that the diagnosis is entirely clear. There should be no difficulty in relieving this man. The first thing that I should suggest would be counter-irritation over the affected region. I should apply, at intervals of ten days, a small blister one and one-half inches in diameter, thus keeping up a series of flying blisters over this area. Internally, I would order iodide of potassium with minute doses of mercury, beginning with three grains of iodide of potassium and one-forty-eighth of a grain of the bichloride of mercury in compound infusion of gentian, after each meal. I might say also that there is no evidence of a fracture of any of the ribs. A continuance of the treatment suggested will, I think, cause a disappearance of the pain in a reasonable time.

SCIATICA WITH ANÆSTHETIC LESIONS.

This man is a carpenter by occupation. Some time ago, while attempting to lift a heavy weight, he strained his back. He subsequently caught cold, and was unable to get out of bed, on account of the pain in his back. We often hear statements just like this: that a man has wrenched himself in some part, and subsequently has caught cold in the weak spot. The experience of every one will give many instances of the truth of this statement. Ever since this attack the man has had more or less pain in the left loin, over the

ilium. The seat of the pain is rather too low to be called lumbago. The lesion is at the sacro-iliac junction, extending to the fibrous tissue of the crest of the ilium, and also to the sheath of the sciatic nerve, inducing sciatica. In this case we have associated with the pain in the regions supplied by the sciatic nerve, a sensation of numbness, of "pins and needles," and the limb feels heavy. There is also evident anæsthesia of certain parts of the leg. Anæsthetic lesions in connection with sciatica are not very common. The affection may go on to atrophy of the muscles, and yet the skin retain its normal sensibility. I find that along the outer surface of the left leg, and for a short distance on the inside of the spine of the tibia, the skin is anæsthetic. The outer surface of the left foot is also anæsthetic. Over the affected area he recognizes light contacts, but does not appreciate pain caused by pin-pricks. Some of the branches supplying the lower portion of the limb are evidently much affected by pressure. We also note that the muscles are beginning to suffer, and it is therefore essential that this thickening be removed as quickly as possible.

In this case I do not think that it would be wise to use blisters, but should prefer the actual cautery, making applications at intervals of five or six days, over the affected area. I should use dry faradization, with a current of moderate strength, over the cutaneous branches, and internally, as full doses of iodide of potassium as he can bear, associating with this, arsenic and iron. I should give at each meal a pill containing:

Pil. ferri carb.gr. ij
Ext. ignatiæ.gr. j
Acid. arseniosi.gr. 1-40

and between meals I would give, in two or three ounces of water, as much iodide of potassium as the stomach will bear, beginning with five grains, and gradually increasing the dose.

A CASE OF CHRONIC NEPHRITIS; REMARKS ON THE NECESSITY OF EXAMINATION OF THE URINE AFTER SCARLET FEVER.

We obtain from this patient the following history. W. K., aged 40 years, a coal miner, has a good family history. At the age of fourteen he had scarlet

fever, from which, it is said, that he recovered without sequelæ. With this exception, he has never been sick until the present illness. He has not had venereal disease. He drinks moderately. Five months ago, without apparent cause, and without unusual exposure, he noticed that the feet became swollen, especially towards evening. About the same time he noticed that urination was frequent, and that the urine was high colored. His general condition has remained extremely good. Examination of the urine shows it to be of a light yellow color, that it throws down a faint cloud of mucus, and that it contains one-eighth of its volume of albumen. The microscope shows small hyaline tube-casts, many with finely granular matter, a few fatty epithelial cells, and a few fat globules.

We evidently have here some form of Bright's disease, and the questions of greatest interest are: how long has the disease been present? what is its cause? and what stage has it reached? We often meet with cases with just such histories, and it would be a great mistake to suppose that the beginning of this man's renal disease was five months ago. No person with previously healthy kidneys ever got a serious nephritis in the way that this has developed. The very fact that the man developed these symptoms without apparent cause, without unusual exposure, and without any special derangement of the general health, is the strongest possible evidence that the organ affected was already habituated to disease, and already the seat of chronic disease. I conceive that the insidious onset of these symptoms is one of the worst elements in the prognosis, as indicating that the kidneys had been diseased for a long time before the symptoms were observed by the patient.

You will have noted that the man is a moderate drinker. I think that moderate drinkers are more liable to have disease of the liver, kidneys and stomach than are total abstainers, but they are not so liable to these affections as are drunkards. Habitual moderate drinking is a predisposing cause to visceral disease. This man does not seem to have drunk sufficiently to justify the opinion that he has devel-

oped severe organic disease from this cause at his early age. What special predisposing causes to Bright's disease do we find in this case? We find none in the family history, and going back to the attack of scarlet fever, we find the statement that there were no sequelæ. But what is the proof? How often will you find in watching a case of scarlet fever, if you examine the urine every two or three days for six weeks, and then every week for a month, and then every month for a year, and then every year for five years, that a little renal trouble develops long after it is thought the patient is out of danger. Scarlet fever leaves the kidneys in a vulnerable condition, and if the patient is allowed to go about in his usual way too soon, there may be a slight attack, too slight perhaps to attract attention, yet sufficiently marked to fasten disease upon the kidneys. This may go on until the kidneys are seriously damaged, and years afterward some cold is taken, or as a result of some other cause, too much work is thrown upon the kidney and we have sudden development of the symptoms, but they come without any remonstrance on the part of the system. The symptoms establish themselves without any shock. The disease is recognized and referred to some recent cause, whereas its beginning may date back some fifteen or twenty years. I think that it is more likely that scarlet fever occurring in a boy of fourteen would be followed by renal involvement, than when the disease occurs in a young child. It is hard work to keep a boy of fourteen quiet during the convalescence of scarlet fever, until all danger of affection of the kidney is past, and I have no doubt that this lad, as soon as the process of desquamation was over, was allowed to go about as usual. Nothing but repeated examinations of the urine at intervals for several months would convince me that there were no sequelæ. I am sure that neither in this case nor in most cases of scarlet fever does the physician take sufficient pains to make these examinations.

I think it is not at all improbable that in this case, the renal disease dates back to the attack of scarlet fever at the age of fourteen. The kidneys

left in a vulnerable condition by the disease, have been subjected to congestion after congestion, as a result of exposure or of moderate drinking, or other cause, until disease has become fixed upon them. This has gone on in an insidious way until finally symptoms appear, which show that the kidneys are the seat of serious disease. The casts which are found are those which are seen in an advanced stage of the disease and are what are found in a mixed case of chronic catarrhal and cirrhotic kidney.

The prognosis in this case must be guarded. The treatment of the case is not that of a passing congestion of the kidneys, but should be based on the fact that there is already serious disease of the kidneys. I should recommend that he come into the hospital and remain for a length of time. As the hour has expired, I shall not be able to discuss this case further, but the points which I have mentioned with reference to the influence of scarlet fever in the production of renal diseases, and the necessity for frequent examinations of the urine continued over a long period, are of the greatest practical importance.

ORIGINAL COMMUNICATIONS.

MASSAGE IN THE TREATMENT OF SKIN DISEASES.

BY JOHN V. SHOEMAKER, A.M., M.D.
Professor of Skin and Venereal Diseases in the
Medico-Chirurgical College and Hospital,
Philadelphia, Penna. Physician to
the Philadelphia Hospital for Diseases
of the Skin, etc., etc.

AS Dr. William Murrell, of London, remarks in his excellent little handbook "On Massage," this mode of local treatment is by no means new, and yet it is but poorly understood and practised by many so-called *masseurs*. This can hardly be due to a lack of pertinent literature, for at the present time the profession is being pelted with works on the subject, and everybody talks about it; the more intelligent, with the greater faith. The trouble is undoubtedly that massage is regarded as a mere instrument, the use of which can be learned at sight, not—as it is—a delicate piece of mechanism whose management requires a large

amount of skill and experience. As a certain French writer says: "All kinds of massage are manipulation, but all kinds of manipulation are not massage." Before recommending this mode of treatment then, I desire to say that by massage I mean the professional art; not mere random rubbing, which in many cases is absolutely futile, if it does not do actual harm.

The question may be asked, how massage effects the end we seek to accomplish. The explanation is both simple and natural. In diseased conditions, besides a sluggish circulation and secretion, and exhausted nerve energy, we have a contingent condition of the tissues in which the cell walls become dense by reason of accumulated deposits. Hypertrophy ensues; the cell contents are cut off from their blood supply and nerve stimulus. Massage, besides exciting capillary circulation and developing nerve energy, mechanically breaks down the walls of the cells and renders the access of nutriment easy and direct.

The application of massage to the treatment of skin diseases is a comparatively recent development of dermatology. But in view of the important functions performed by the skin and its intimate relation to the health and beauty of the body, it seems rather surprising that a possible benefit thereto by the use of massage, has not been earlier considered. In August, 1884, it was my privilege to read before the Section of Dermatology and Syphilis of the Eighth International Medical Congress at Copenhagen, a paper on "The Treatment of Diseases of the Skin by Novel Means and Methods," in which I advocated massage in various cutaneous affections. This paper was an elaboration of the theme I had previously introduced before the American Medical Association in September, 1883 ("Mechanical Remedies in the Treatment of Skin Diseases."—*Vide Medical Bulletin*, Sept., 1883). In the latter article, I gave some directions as to the practice of massage, and I will not repeat them here, as my readers have probably access to the works of authorities on the subject, or they can at their pleasure consult the article referred to.

In regard to the use of massage, I will say that the results obtained early in my dermatological practice have been confirmed by repeated trials, until I now regard it as one of the most helpful agents at my command. In the dry and scaly forms of seborrhea, in thinning and loss of the hair, *gentle* massage is of great advantage by restoring a perfect capillary circulation, promoting absorption and imparting a healthy tone to the tissues. In case of indurated acne and glandular swellings, it relieves congestion and opens the clogged absorbents, thereby destroying the troublesome lesions and rendering the skin soft and elastic. Carried still deeper, massage is very useful in removing stubborn constipation, together with gastric and intestinal disorders, which are a cause of many skin diseases such as acne, rosacea, hyperidrosis, seborrhea, urticaria and eczema. Excess or deficiency of pigment may often be removed by massage, which promotes absorption and restores a healthy activity in the skin. There is nothing better to remove scurf and sebaceous deposits. The testimony seems to be that it increases the number of red blood corpuscles, and is a valuable adjuvant in promoting oxidation in psoriasis and scrofuloderma. In subacute and chronic eczema it may be used with advantage. In the treatment of the various forms of this affection I have found massage especially efficacious and can recommend it as an excellent agent to control the intense itching. It acts either as a sedative or counter-irritant, according as it is applied gently or powerfully. Neuroses like neuralgia, perverted sensibility, and trophic disturbances of the skin, may be greatly relieved by massage.

There are many cases of marked infiltration of the skin, in which medication seems utterly ineffectual. The skin is dry, rough, thickened and leathery, having apparently lost completely its functional activity. Such cases will often yield to massage, when all other means fail. On the other hand, exudations and inflammatory products are eliminated by massage. For promoting restful sleep, which is so important in the preservation of healthy cutaneous action, massage is valuable.

Summing up the results of my experience, I may say that, if applied with skill and discretion, there are few cases in which massage can fail to do good and still fewer in which it may do harm.

As a precautionary measure, let me suggest, however, that the part to be treated be perfectly exposed and at ease, so that the best effects of manipulation may be obtained. Also, before operating, have any hair that may cover the surface well shaved off, as it may interfere with the movements and cause a serious irritation. If massage is to be carried on without the personal supervision of the physician, great care should be taken to direct the application with great minuteness. You do not want the patient pummelled by a quack "rubber" or pounded black and blue by zealous but inexperienced friends. Massage of the skin should be a *crescendo* movement, beginning with a gentle half-caressing touch of the hand and increasing in force and frequency as adapted to each individual case.

In conclusion, I would say that where there is no special lesion of the skin and it is only desired to enhance the beauty of its texture, its fairness, softness and elasticity, there is no agent so powerful as massage. The well-recognized benefits of friction with a coarse towel are feeble imitations of the results of skilled massage. We are told that Ninon de L'Enclos, who had lovers when she was sixty, preserved the perfect beauty of her skin by brushing it every night with a stiff brush.

PEPSIN TESTS, OPTICAL ILLUSIONS AND ENDORSEMENTS.

BY M. B. MANWARING.

THE usefulness of pepsin is to-day not a matter of conjecture based upon hypothesis or even external tests, but rather is its therapeutic value a fixed fact established by its use within the secret archives of the human stomach.

This ferment is not limited in its use to internal administration, but in solution it has found work to do amidst tumors and fibrous or muscular growth; it has cleansed wounds and removed unhealthy discharges; it has operated alone and in combination as a local

throat application for the solution of false membranes of croup and diphtheria; it has been found indispensable in feeding per rectum, in all cases where the stomach itself could not digest the food, as in gastric cancer, gastric ulcer, etc.; dissolved in glycerin it has been found a solvent in scaly diseases of the skin, and also in such diseases as are produced by epiphytes, and for freckles, warts and moles. Its use in solution injected into the bladder to dissolve and remove albuminous matters is especially important. Pepsin has merited the name of "a true tonic" in that it rests instead of stimulates to action the weak and tired stomach. It is a valued friend in cases of convalescence from all organic diseases and functional disorders. We need but merely mention its uses as a stimulant in fevers, pneumonia, phthisis, marasmus, etc., and as a corrective and helpful vehicle in diarrhoea, dysentery, cholera infantum, sea-sickness, excessive use of alcoholic stimulants, etc., etc.

Given a good article, success in the use of pepsin often depends largely upon sound judgment on the part of the practitioner, as the ferment comes under biological rather than chemical laws, and is therefore extremely sensitive in its relations. But given a poor article, and the exercise of the best judgment returns disappointment and loss of confidence in the efficacy of all preparations of pepsin. In the majority of cases the physician can judge somewhat of the quality of a medicine by its odor, taste and general appearance; but no judgment whatever can be formed of the digestive power of a pepsin by any means short of actual test, either therapeutically or by artificial digestion; and, unfortunately, both these general methods very frequently fall short of certainty and precision. As manufacturers of pepsin are no exception to the rule that advertisers generally "draw a long bow" and miss their aim, as they deal only with the superlative, the unparalleled, the *ne plus ultra*, the physician stands in the midst of unreasonable, irreconcilable and conflicting claims. Varied, ingenious and persistent are the attempts of manufacturers to carry conviction to the incredulous mind of the physician that certain goods are the

best; and, to make the contrast stronger, the plan is frequently adopted of attempting to show by fair as well as unfair means that *other* goods are greatly inferior or altogether worthless. The constantly tormented doctors have reached a point where ordinary advertisements have but little influence; but a strong hold upon their confidence is apt to be gained when advertisers succeed in getting the co-operation and support of those physicians, "in good and regular standing," who are induced to inadvertently thus lend themselves to the advertiser's financial advantage, but their own disadvantage.

Dr. E. R. Squibb's comments on this point and on this very subject of pepsin are so pertinent, that we cannot forbear quoting from him. (See "The Proceedings of the Medical Society of the County of Kings, for May, 1888"): "It is hazardous to the best interests of both the science and the art of medicine for medical men, either individually or through their organizations, to publish anything that can be used to advertise individual or proprietary specialties for business purposes." * * * * "Those whose names and papers are so used become at once special partners in business enterprises or endorsers of speculative business paper; and if this fact could but be recognized by all readers of such names, papers and advertisements, the risk of harm would be much less. But, unfortunately, the relation is not generally recognized in the medical profession, though very promptly recognized and utilized by the mercantile or trade interest involved. Hence, when the medical man joins the business man in extending the profits of his business, the medical man necessarily joins in the risks and liabilities of the business, and loses in reputation and professional tone and dignity all that the business man gains by him. What the medical man expects and hopes to gain, by lending his name and influence, is a good specialty for the use and benefit of his profession at large. And in his hope and through his enthusiasm he disregards the experience of both past and present time throughout which fallacies and quackeries have passed and are passing into disuse, despite the physician's certificates and endorsements, and

so-called experience in their use, dragging down with them the names of their endorsers. The business man, however, does not go down with his wares and his doctors' names, but having harvested his profits, invests a part of them in new enterprises." * * * * "The statements themselves, in the abstract letter, may be truthful—at least in the sense of being believed by those who make them—and yet the purposes with which they are given, and the uses to which they are put, make them generally untruthful and hazardous. Leaving out of consideration that small proportion of the medical profession which purposely lends itself outright to the making and advertising of specialties as a business, the main cause of the evil is, perhaps, that physicians will accept any testimony as evidence, and thus allow themselves to act upon insufficient grounds. For example, if a physician testifies to a special make of pepsin, there are several prominent reasons why his testimony may not be safe as evidence. First, if his testimony be definite and florid enough to be of much value to the manufacturer, it is almost impossible that it should be accurate enough to be accepted as evidence. He cannot be sure that the sample tested accurately represents the whole product of the maker. He cannot be sure of his methods and conditions of testing, without a carefulness and thoroughness of research and observation which is rarely attempted in such cases, because rarely considered necessary; and finally, he cannot be sure that the article, at his time of testing or using, is of the same quality as it will be in the future, when his testimony and endorsement is used for it. The testimony remains unchanged; but, admitting it to be accurately true and just, the substance endorsed may change indefinitely." * * * *

By the ordinary method of testing the power of pepsins—very indefinitely expressed in the last U. S. Pharmacopœia—apparently slight variations in the conditions largely modify results. So pronounced is this fact, that not only will tests of given samples often greatly vary in the hands of different operators, but frequently the same variation obtains when tests of any given sample are repeated by the same opera-

tor. The reason of this is largely due to the impossibility of complete control of conditions, and oftentimes to imperfect observance of such conditions as can and ought to be controlled. For instance: one operator will undertake to test pepsins at a temperature of 100° to 105° Fahr., and through carelessness, or by too frequent and too long removal of the test bottles from the bath to agitate their contents, the temperature may be held several degrees lower than intended. On the other hand, another operator may be more watchful and more careful every way, and in reality maintain the temperature nearer 105° than 100° , during the whole time of the test. These two operators believe that their tests are duplicates, while the difference in temperature may amount to perhaps 9° —apparently a trifling matter. Now what are the observed facts? Prof. Schaffer found that one grain of a pepsin held in contact with coagulated albumen in water and acid at 75° Fahr. for eighteen hours, dissolved 400 grains of the albumen, while the same pepsin exposed for only six hours at 105° dissolved 500 grains. A. Petit notes: "The same pepsin is about four times less active at 104° than at 122° Fahr."—a difference of 18° . The 9° difference then, in the supposed case, is alone sufficient to account for very variable results obtained by different operators, even if all other conditions were the same for both, which is impossible.

While modifying conditions are to a considerable extent well understood, especially by experts, there are some others not so generally received, of which we will present a few examples: It appears self-evident that if several pepsins are tested simultaneously, the comparison at least must be correct, because the conditions are apparently alike for all, however much they may vary from the ideal. This would be logical if the pepsins were all of equal power, but this not being the case there enters a disturbing condition that necessarily cannot apply equally to all, and which sometimes renders results entirely worthless. In proportion as pepton is formed by the action of pepsin on albumen, true digestion proceeds less

rapidly; and when a sufficient percentage of pepton is present, digestion is entirely suspended. If, therefore, the proportion of water is insufficient to allow full action of a powerful or concentrated pepsin tested side by side with an equal quantity of an inferior pepsin or of the saccharated form, it is evident that long before the tests are completed the action of the stronger pepsin ceases, while the weaker article continues action perhaps to the end, and even after the source of heat is withdrawn, and results appear to prove but little if any difference between the samples tested.

Again, two pepsins tested at the same time, under the same conditions so far as they can be controlled, results showing one to have dissolved perhaps much more albumen than the other; another operator testing the same pepsins—even from the same bottles—finds the comparative values exactly reversed. Upon investigation we find that for one comparative test the eggs (as the source of albumen) had been in boiling water say fifteen minutes, while for the other but five minutes.

Again, one pepsin appears to act with greater speed than another during the first hour or two, while the latter may be much more active towards the end of the process. If, under these circumstances, the time allowed for one comparative test is, say three hours, and for another six hours, results are likely to contradict each other.

But the most important point, entirely overlooked by the official method, is the distinction that ought to be made between the *dissolving* and the *peptonizing* power of pepsin. The dilute hydrochloric acid alone dissolves much of the albumen, forming principally syntonin and myosin, and these together with the intermediate grades and bye-products between the proteid and the end product of true digestion, viz., pepton, are all unscientifically lumped together as indicating the digestive power of a pepsin. It is admitted that the common mode of testing pepsins if carefully done, serves very well for rough work, when time is limited, provided the operator draws his deductions either from quantitative estimations of the proportion of albumen dissolved,

or from inspection of the residual coagulated albumen, noting the varying degrees of translucency of the remaining albumen which has been partially acted upon, though not being thereby reduced in volume, but on the contrary, swollen so as to have increased in volume. But when such a mode is set forth as scientific, or results thus obtained are held out as demonstration of comparative values of pepsins, we have the strongest reasons to protest, and feel well sustained in our opinion by those who have made this matter the subject of careful investigation.

While we hold to the fact that it is the peptonizing power of a pepsin that the physician wants, and believe that the "Kremel test" furnishes an accurate method of making the required quantitative determination, we are not yet satisfied that the conditions under which the pepsin is allowed to act are any nearer perfect, or under any better control, than in the case of the ordinary or official method. While finding a considerable difference between the peptonizing power of one pepsin as compared with another, Prof. Stebbins found but little difference between the first two and the sixth, in the list given,¹ when the tests were made in the ordinary way, and the results judged of by the eye alone, and the difference found did not at all accord with those obtained by the "Kremel test."

A firm, engaged in the preparation of digestive ferments, has lately ingeniously and boldly attempted to convince the profession of the superiority of their own make of pepsin, and by contrast to show the great inferiority of several other brands, by the aid of photography and drawings therefrom, the tests from which the photographs were taken having been made in the usual manner by persons of at least good standing, if they are not experts in the case. While we would not question the integrity of those who have thus aided the advertiser, we have attempted to show a few of the reasons why the method of test adopted falls short of the demonstration claimed. Upon comparing the cuts presented by the advertiser, one is impressed

¹ See page 546, preceding number.

with their wonderful agreement, as also the apparent value of one brand as compared with the worthlessness of all the others. On inspecting the original photograph of one of the test series, we find that the corresponding drawing has been pretty accurately made, the photograph *apparently* showing that the original quantity of albumen had practically remained undiminished in all the tests except that of the advertiser's pepsin—as shown by one bottle of the series containing the given quantity of coagulated albumen, but without pepsin. The reason of this illusion is, that the albumen of all the tests photographed equally white and opaque, and therefore it presents the same appearance in the photograph as the albumen which was without pepsin, so that the eye naturally takes into consideration only the relative heights without at all considering that the remaining gelatinous and translucent albumen bears no likeness to what it was originally.

This attempt to impose on the profession—whether intentionally or otherwise, does not alter the fact that it is an imposition—is similar in character, though different in method, to that undertaken some years ago to prove to the profession the great superiority of a certain brand of pepsin, and at the same time show that other pepsins were very inferior. In this case the tests of sixteen different pepsins *apparently* showed to the eye that the one brand referred to was, on an average, more than ten times better than the other fifteen. But Dr. Squibb proved by a thorough investigation the utter fallacy of the method, and that those pepsins which tested by this method appeared of very low value, were really fully equal to the particular brand referred to when tested quantitatively by digestion.

While there has been proposed a number of methods of testing the digestive strength of pepsin, there appear to be serious imperfections in them all, the recognition of which is an important step towards reaching a reliable method.

THE Emperor of Germany died June 15, at 11 A.M.

TRANSLATIONS.

A DISINFECTANT MIXTURE.

DR. ERNEST LAPLACE, of New Orleans, as a result of a series of experiments performed at the Hygienisches Institute in Berlin, recommends a mixture of equal parts of commercial sulphuric acid and crude (25 per cent.) carbolic acid in solution as a disinfectant. His procedure consisted in taking 5 ccm. of commercial sulphuric acid and 5 ccm. of crude (25 per cent.) carbolic acid and mixing; the mixture was well shaken, heated and then allowed to cool. The mixture was then found to be of a black, homogeneous, syrupy-like consistence, and dissolved easily and quickly in water.

His experiments as to the disinfecting qualities of this mixture were conducted by the aid of anthrax spores after the usual laboratory methods, and he gives the following table of results:

Equal parts of commercial sulphuric acid and crude carbolic acid.

Concentration of the sol. in water.	Anthrax spores.										
	Length of time of the spores in the disinfecting solution.										
	$\frac{1}{2}$	1	2	3	5	8	20	24	48	72	96 hrs.
4 %	+	+	+	+	+	+	+	+	+	0	0
2 %	+	+	+	+	+	+	+	+	+	+	0
1 %	+	+	+	+	+	+	+	+	+	+	+
$\frac{1}{2}$ %	+	+	+	+	+	+	+	+	+	+	+

+ = growth.

0 = no growth.

+* = retarded growth.

or, according to the table, the anthrax spores were destroyed in 48 hours by a 4 per cent. solution, and in 72 hours by a 2 per cent. solution.

Laplace calls attention to the fact that a 2 per cent. solution of pure carbolic acid has no influence whatever upon anthrax spores, and that the recent much praised creolin in 2 per cent. solution does not destroy them.—*Deutsche Medicinische Wochenschrift.*

CONTUSION OF THE SCROTUM, WITH HERNIA OF THE TESTICLES.—A boy 14 years of age had a fall; the wheel of a cart passed over his body, lacerating the scrotum so that the testicles protruded; one being naked, the other covered by the tunica vaginalis. M. Auriol washed the testicles and proceeded to replace them. This proved very difficult in the case of the naked

testicle. An antiseptic dressing was applied, with favorable results. The reduction and retention of the last testicle were so difficult that M. Auriol was obliged to fasten the organ to the skin by transfixing both with a pin.

—*La France Méd.*

HYPERCHLORHYDRIA AND GASTRIC ATONY.—Last January M. Germain Sée called attention to the importance of studying dyspepsias chemically and ascertaining the proportion of hydrochloric acid contained in the gastric juice. He indicated as the best reagent the phloroglucine vanilline. To-day he communicates interesting remarks upon dilatation of the stomach with hyperchlorhydria. Instead of 1.5 parts per 1000, the proportion of hydrochloric acid was raised to 3, 4, or even 5 parts in 1000 of gastric juice, in thirteen cases of dilatation.

This exaggerated acidity explained the painful spasms of which the patients complained, as well as the burning sensations, the false hunger, which occurred four or five hours after meals.

M. Sée insists upon the necessity of chemical investigation for differentiating and treating gastric and intestinal affections.

The alkalinization of the gastric juice ought to precede all other treatment in these cases; but it does not answer to prescribe soda carelessly; the bicarbonate should be given four or five hours after meals, as this is the only time when it can be of use. The diet should be of light food, especially eggs; it is unnecessary to resort to milk. Legumes, green or dry, bring back the pains. For a beverage M. Sée recommends tepid tea, taken in notable quantity.—*Le Progrès Méd.*

CHRONIC SUPPURATION OF THE EAR.—Dr. Dayton, in an article in the *Archives of Otolaryngology*, Dec., 1886, calls attention to the necessity of treatment of nasopharyngeal diseases in connection with medication of the tympanum in chronic suppuration, and says: "It is to be feared that the process of repair in an exposed tympanum is, in the tedious and frequently empirical method of treatment, often forgotten. Cleanliness, to maintain drainage, is indispensable; but checking a discharge is not sufficient.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE HOSPITAL. SURGICAL CLINIC HELD BY J. M. BARTON, M.D.

Reported for the MEDICAL TIMES.

STRANGULATED HERNIA; REDUCTION.

This man, John H., aged 85 years, came here in great pain while the last operation was being performed; he has a strangulated left inguinal hernia about the size of a lemon, of only one hour's duration. As he is in great pain, we will start the ether at once.

The same individual came here about a year ago, with a strangulated *right* inguinal hernia. It also had only been down for an hour, and with it also he had intense agony. I happened to be in the hospital at the time of his arrival, and had him immediately etherized; but tried in vain to reduce it. I then cut down upon the parts and exposed the bowel, which was already discolored by the tight constriction at the ring. It was only after a very free division of the ring that I was able even then to reduce it. I then excised the hernial sac, and sewed it up with catgut. You heard him say, previous to the administration of ether, that the hernia on the right side has never appeared since the operation.

He is now fully under ether, and I shall attempt the reduction of the hernia on the left side. I flex the thigh upon the abdomen, and press it gently toward the median line to relax the ring. While the leg is held in this position by an assistant, I grasp the hernia and gently draw upon it, as though to bring more of it down; with the fingers of the other hand, I lessen its diameter at the neck and then try to reduce a portion. It is very tight, and fails to return to the abdomen. I readjust the position of the leg and try again, always very gently, for great force used here would be apt to do more damage than the operation of herniotomy. After repeated trials, some of the bowel returns to the abdominal cavity, and gradually more and more, until now there is none in the scrotum; it is all reduced. I invaginate the scrotum and carry my finger through the ring, to be certain that it is entirely clear. A

large compress is placed over the ring and kept there by a spica bandage, to prevent the hernia redescending.

Some morphine will be given hypodermically, and if, after forty-eight hours, no symptoms of peritonitis appear, he will be discharged and directed to procure a well fitting truss.

If I had not succeeded in reducing this hernia, I should have operated at once. The danger of operation, in these days of antiseptic surgery, is very little if performed early, but every hour of delay adds greatly to the risk.

STRICTURE OF TWELVE YEARS DURATION, RUPTURE OF URETHRA, EXTRAVASATION OF URINE, FREE INCISIONS AND PERINEAL SECTION.

Robt. R., aged 32 years, was brought to the hospital late last night, with a history of a chronic urethral discharge. Twelve years ago a stricture was recognized, and some years later dilated, but the patient neglected to use the bougie afterwards, though he had been instructed to do so. The stricture contracted until the stream of urine became very small, he being often able to void it only drop by drop, and with great straining.

One of these attacks occurred a few days ago, and was followed by great pain and swelling in the perineum and scrotum. The scrotum is now at least ten times its natural size and is greatly discolored; the penis is also oedematous and many times its normal size. The patient has had severe chills, his temperature is now 104° , he is unable to pass any water, and his bladder is distended.

While his stricture was contracting, he was forcing the water through it by a strong effort; this caused a dilatation of the urethra, with thinning of its walls, back of the stricture. Until at this last attack, his violent straining caused a rupture of the thinned urethra and the urine was extravasated into the subcutaneous tissues of the scrotum and penis.

You notice that the posterior portion of the perineum and the thighs are free from swelling and discoloration; this indicates that the rupture has taken place in front of the triangular ligament. If it had taken place behind that ligament, the swelling would have occurred in the posterior portion of the

perineum, and the urine would have burrowed deeply around the bladder, prostate and rectum, forming deep and dangerous pelvic abscesses.

A partial rupture occasionally takes place, the mucous membrane is ruptured, but the strong fascia around it, known as Buck's fascia, remains intact. Under these circumstances only a small and circumscribed swelling takes place, and it may remain in this condition for weeks or months.

Portions of this patient's penis and scrotum are already in a sloughing condition, and unless the decomposing urine confined in the cellular tissue is permitted to freely escape, much of this infiltrated tissue will probably slough. There is great danger to life, as the patient's appearance, his temperature and other symptoms denote an already existing septicæmia.

I draw my knife freely through the most discolored portions, making deep incisions, each several inches in length, the penis also receives similar treatment. This oedematous foreskin distended and curled up, completely hides the head of the penis; and as I wish to explore the urethra, I shall make one of the incisions the same as that in the operation for phymosis. I now introduce a bougie and find a stricture which is readily dilatable.

In order to prevent further infiltration of urine, I shall make a new channel for it by opening the urethra in the perineum, and as this bougie is in the bladder it will serve as a guide. I make a median incision upon it, just in front of the anus, striking the membranous portion of the urethra. The wound is now enlarged with the knife, until I can readily carry my finger into the bladder.

The urine will now drain directly from the bladder as fast as it is secreted, and will be received upon a draw sheet placed under the patient. This is most conveniently arranged by folding a sheet into a long strip, about a foot wide and the entire length of the sheet. This is rolled up, and one end placed under the buttocks of the patient. As fast as it becomes wet it is passed along and rolled up on the other side of the patient, and the clean portion unrolled. Some simple ointment is

placed upon the buttocks to prevent the irritating urine producing bed sores. The patient will be given full doses of quinia and whisky and concentrated nourishment.

He will soon regain control of his bladder. In two or three days the water will probably all be passed by distinct acts of micturition, every three or four hours; the urine passing through the wound and it will continue to do so for several weeks.

When cystotomy is performed to rest an inflamed bladder, it is necessary to make free lateral incisions into the prostate to prevent the patient too soon regaining control of the bladder; as when the operation is performed for this purpose, we wish the urine to drain away from the bladder, as fast as it is secreted for several weeks.

Note by reporter, on inquiry ten days after the operation, I find that all the cases reported have done well. The wound made in excising the ribs has healed, and the empyemic cavity has already decreased in size. The patient with strangulated hernia had no bad symptoms and was discharged cured two days after the reduction. The temperature of patient with the ruptured urethra, which had been 104° previous to operation, dropped by the next day to 100° and the day following to normal, and has remained under 100°. The wounds are nearly healed, except that in the perineum, which still remains open, and through which the urine is passed every few hours.

PHILADELPHIA HOSPITAL.

CEREBRO-SPINAL MENINGITIS. (*Tyson.*) He showed the brain from a case that had died of cerebro-spinal meningitis a few days before. He thought the case was not tuberculous, but a microscopic examination had not yet been made.

The membranes on the convex surface of the brain presented no abnormal appearance; but on the under surface, in addition to considerable pus and lymph, the pia mater was inflamed and thickened over the pons Varolii, optic chiasm and adjacent parts; the opposing surfaces of the same membrane in the fissure of Sylvius were glued together; and the lateral ventricles contained ten grammes of a lym-

phatic fluid. Besides this, the spinal cord was at several points much softened.

STROPHANTHUS.—With regard to strophanthus, Prof. Frazer claims that it is a better diuretic than digitalis, because the latter contracts the arterioles. Tyson thinks that clinical experience does not bear out this theoretical objection to digitalis. He considers it the better diuretic of the two; but strophanthus a good second.

SCURVY. (*Henry.*)—A few days ago there were five cases of scurvy in the Hospital. They were Italians, all from the same place, and all had doubtless lived under the same conditions: poor food, bad hygiene and the like. Two of the cases were shown at the clinic. The blood of these had been examined when they were first admitted; and in the first the corpuscles were found to number 2,700,000 per cu. mm., with thirty per cent. of coloring matter; and the blood of the second yielded 1,900,000 corpuscles per cu. mm. They were rapidly improving under treatment.

PERCENTAGE OF ALBUMEN IN URINE.—There is so much misunderstanding with regard to the percentage of albumen in a given urine, that a word on that subject may not be amiss. In one of our colleges some time ago a lecturer on genito-urinary diseases, referring to the common error of saying that there was 20, 25, or 50 per cent. of albumen in this or that specimen, remarked that the largest percentage of albumen ever recorded was 5.5 per cent. Shortly afterward a professor in the same institution, speaking of a urine he was examining, said there was only a small percentage of albumen, say 5 per cent. or so.

A few days since a lecturer, in the Philadelphia Hospital asserted that the largest percentage ever found was 2.5 per cent. In looking at the specimen, the amount of coagulated material may appear to be one-fourth or even one-half the contents of the test-tube, but the percentage is in reality comparatively small. The truth of the matter is, we believe, that 5.6 per cent. is the largest amount of albumen heretofore discovered.

ABORTIVE TYPHOID. (*Wilson.*)—Man of 25; brought in on 1st of May for acute alcoholism; remained in drunk ward till 10th of May, when the resident, noticing that the delirium was of a peculiar character and the temperature high, had him removed to another ward. A few days afterward when the patient was shown at the clinic he exhibited all the well-marked signs of typhoid fever, except one—his temperature was normal. The man was supposed to be now at the end of the second week.

There had been no apparent hemorrhage to account for the temperature; nor could there have been a masked hemorrhage, for in that case some part of the hitherto tympanitic abdomen would give dulness; and, also, coincident with the hemorrhage, there would be a clearing up of the patient's mind, though as a rule only temporarily.

So far the case was inexplicable; but a few days further observation showed it to be a case of abortive typhoid, such as is common in France and Germany, but is not often seen in this country.

DANGER FROM ANTIPYRINE.—In a case of tubercular phthisis complicated with pneumonia, a gramme of antipyrine was given in divided doses, in order to reduce a dangerously high temperature. The temperature fell rapidly about 4°; but the fall was accompanied by profuse sweating and tendency to collapse, so that active stimulation was needed to tide over the depression.

Dr. Wilson regards the modern antipyretics as potent remedies, requiring caution in their administration, and though often useful, yet occasionally very dangerous.

SPONTANEOUS RUPTURE OF THE SPLEEN. (*Henry.*)—A strongly built young man of twenty-one exhibited all the symptoms of typhoid fever, but in a mild way. Apparently he was passing easily through the disease to a certain recovery; when, on the night of the 18th day he suddenly went into collapse and died in a few hours. Of course perforation of the bowel was suspected, but at the *post mortem* no perforation could be found; indeed, there were comparatively few of Peyer's patches involved,

and the ulceration in these was at no place deep. Several ounces of blood were found in the peritoneal cavity, however, and its presence was accounted for by a rupture of the spleen at the lower border; a rupture of an irregularly circular shape, about three inches in diameter. The spleen was nearly twice the normal size, soft, friable and greatly congested.

FISSURED NIPPLES. (*Parish.*)—One of the worst things for fissured nipples is rubbing them and also the breasts; abscesses are likely to follow.

He likes nitrate of lead, gr. x to the 3 of water, twice a day. Keep the nipples clean; and after washing them, an application of oil of theobroma is soothing.

MEDICO-CHIRURGICAL HOSPITAL. Patients are generally very grateful for little attentions to their personal comfort, and the physician who recognizes this and acts accordingly will not find his practice hurt thereby.

There are few people who can receive on the bulbar conjunctiva, without a shudder, a cold drop of atropia, boric acid or the like; but try this way: Let the patient hold his head back and close his eye; then put a drop or two of the solution into the inner angle of the eye; tell him gradually to open the lids and turn his head outward. The solution will insinuate itself into his eye, almost without his being aware of it.

—*Pancoast.*

CHOOSING A TONGUE DEPRESSOR.—A tongue depressor with an oval opening in it is much better than one made solid. The small part of the tongue that presses through the opening does not obstruct your view, but the same amount bulging up at the sides hides considerable that would otherwise be seen.

—*Barton.*

OPERATING ON THE LARYNX.—If you wish to perform a small operation on the larynx—remove a slight growth, for instance—of a patient whose throat muscles go into a spasm the moment his larynx is touched, and thus spoil the whole performance, the best way to do is gradually to accustom the throat to instrumentation. Six or seven times

a day let the patient oil his index finger, and, having passed it back, raise the epiglottis. Once a day put your instruments in his throat and simply touch the larynx, though you may not get so far the first time. After a few days the throat will have become so accustomed to instruments that you may easily grasp a tumor or do whatever else you wish.

ATROPIA IN THE EYES. (*Keyser.*)—There is considerable prejudice against the use of atropia in the eye, and against myopies generally, on the ground that they have ruined many eyes. There is no danger from using these drugs, provided they are used intelligently. No one ought to put atropia into an eye without first feeling the tension. If there is the slightest indication of glaucoma, then do not use a myopic.

INHERITED DEFICIENCY OF A TOOTH.—Dr. Cryer says that he has, among his patients, members of the same family, representing five generations, each lacking the left lower lateral incisor tooth. An interesting feature of this remarkable instance of heredity is that one of the members of the same family has a supernumerary lower incisor.

FOR SUPERFICIAL NEURALGIAS.—Here is Garretson's favorite application for superficial neuralgias, especially of the face:

R Aconitini..... gr. ij
Veratrini..... gr. iv
Olei tigllii..... gtt ij
Olei olivæ..... 3 ij

M. Sig.—Rub over the affected spot thrice daily.

Shoemaker.—Eczema is the most common skin disease, and is often a very obstinate trouble to cure; so one cannot have too many remedies and combinations at hand. For a case of pustular eczema on the leg, the result of a burn, he gave—

R Olei morrhue..... 3 iv
Olei cadini..... 3 ss
Zinci carbonatis impuri..... 3 ss. M.
Ft. unguentum.

There was here considerable loss of tissue, and, for restoring the upper layers of the skin, turpentine is of good service. Internally, then, gr. $\frac{1}{8}$, Venice turpentine three times a day.

SEBORRHOEA OLEOSA.—This oily form of seborrhœa is rather frequent in women, and, when it affects the face, giving a shiny, greasy appearance, it is the cause of much annoyance and considerable disfigurement. All alcoholic stimulants should be absolutely interdicted. Here is a good preparation to act on the sebaceous glands:

R Aloini..... gr. iij
Zinci oxidi..... gr. v
Capsici..... gr. x
Extracti gentianæ..... gr. l. M.

Ft. pil. in numero xxv.

S.—Take one four times a day.

He also gave this application:

R Thymolis..... gr. ij
Chloral hydratis..... gr. xx
Acidi borici..... 3 j
Hamamelis dest..... 3 j. M.

MUCOUS PATCHES. (*McConnell.*)—The reason we find mucous patches in the mouth and pharynx in syphilis is, because the lymphatics are here more superficial than at any other place in the body except the glans-penis.

Any irritation, especially smoking, is likely to produce these patches, much to the patient's annoyance. For this reason smoking should be prohibited during treatment.

CHANCROID.—This is a self-limited specific ulcer, of three stages: 1st, of advancement; 2d, the stationary stage; and 3d, the stage of resolution.

Do not burn this ulcer. As a rule you fail to reach the specific virus at some little pocket or point, and so you merely increase the sloughing area. In the majority of cases this treatment will be sufficient: First, with a little cotton on a match, let him mop off the purulent matter on the ulcer. Tell him then thoroughly to cleanse the sore by sponging it with salt water, and afterward with tepid water. Now let him apply to the chancroid cotton saturated with black wash—gr. v calomel to 3j limewater, and retain the cotton in place by a bandage.

Perhaps you may need in some cases a little greater stimulation; if so, one part of alcohol to six parts of water is usually enough. But if still more stimulation is needed, I use this modification of the yellow wash: Hydrarg. chlor. cor., gr. j, to limewater 3ij.

Never put an ointment on a sore that is under the prepuce; there will almost

certainly be decomposition of the ointment, causing an eruption of some kind, eczema for instance. Here is a good ointment, if you prefer one to a wash :

R Unguenti hydrarg. nitratis ʒj
Adipis benzoati ʒj

I never use iodoform, for the simple reason that its infamous odor "gives the patient away."

A few days ago a well-dressed, gentlemanly-looking young man got into a street-car, in which I was; and almost as soon as he entered my nose told me what was probably the matter.

OVARIAN TROUBLE. (*Woodbury.*)—A diagnosis of ovarian trouble may sometimes be made out simply by the presence of a growth of hair on the face; as it is well known that a close relation exists between the ovaries and the growth of hair.

ILLUSIONS DURING PREGNANCY. — Women are frequently subject to illusions during the first months of pregnancy. A case is related of a woman who always knew in the early months that she was pregnant by the singular illusion of seeing a cow in the room, jumping over chairs.

JEFFERSON COLLEGE.

EPITHELIOMA OF THE LOWER LIP. (*Hearn.*)—Epithelioma of the lip is not malignant: that is, if you operate in time. If the growth is removed before there is glandular involvement, you may promise your patient almost certainly that there will be no return.

I have operated on a large number of cases, and this is my experience. But about no other part of the body would I give such assurance.

In the case before you, the cancer has been allowed to go on until there is considerable involvement of the glands of the neck; and, in addition, the patient is old. So, take it all together, I dare not give any promise in this instance.

After allowing him to recuperate from this operation, I shall also take out the enlarged glands.

There is hardly any operation so simple as the removal of an epithelioma from the lip: anybody could do it. And physicians are much to be blamed for allowing these cases to go on, day after day, till it finally becomes too late to save the patient.

SARCOMA OF AN UNDESCENDED TESTICLE. (*Hearn.*)—A man of 35; when seven years old, he fell on the edge of a board, which resulted in an inguinal hernia of the left side. The hernia was kept in place by a truss. Six years ago he was struck over the point of rupture, and in a few months he noticed a growth, which increased till it acted the part of a truss, keeping the hernia up.

The skin and fascia, superficial and deep, were incised, exposing a shiny, ellipsoidal shaped growth, which was afterwards found to have a weight of twenty ounces, and dimensions of six inches long, four wide, and two deep. The testicle was covered by the tunica vaginalis and by the other coats common to a testicle in that position. After ligating the spermatic cord, the tumor was removed; and it was then seen that the neoplastic growth had just broken through the coats marking its inferior boundary, and was preparing to make incursions into the surrounding tissues.

The spermatic canal was found to be pervious down to the upper boundary of the scrotum; so a drainage-tube was passed down that far, and then through the skin; after which the wound was closed.

ORTHOPÆDIC HOSPITAL.

NEURITIS FROM AN OLD FRACTURE. (*Sinkler.*)—Neuritis is not an infrequent sequel of a fracture, especially of a fracture of the fore-arm. The best way to treat a case is with massage by a good masseur. If this cannot be had, advise a liniment applied with much rubbing.

JEFFERSON COLLEGE HOSPITAL.

Dr. Rex states that when dyspepsia persists, even when the patient has been put upon soft food, he has had excellent results from a diet of solid food, such as hard-boiled eggs, cut very fine, with four grains of soda bicarb. before meals, and

R Tr. uncis vomicæ.....gtt. xx
Tr. cardamoni comp.....gtt. xl
Infus. gentianæ comp.....ʒ j

M.

For constipation Rex prefers the compound extract of colocynth.

Never associate œdema with arterial circulation.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JULY 15, 1888.

EDITORIAL.

MEDICAL JOURNALISM AND
TRADE JOURNALS.

AT the annual meeting of the Association of American Medical Editors, at Cincinnati, the publication of "Trade Journals" was one of the subjects appointed for discussion. After a free ventilation of the question, it was concluded that the existence of these pseudo-scientific medical periodicals was an evil, demoralizing to the profession and injurious to legitimate medical journalism. This is due to the fact that such journals are not published for the advancement of medical science, or the benefit of the profession, but with the ulterior motive of advancing the selfish interests of some business corporation or firm. That this verdict is just with regard to the periodical advertisements under the form of medical journals issued by some proprietary medicine manufacturers is unfortunately true; such publications are distributed either gratuitously, or for a nominal subscription price, and are probably the only medical journals read by some members of the profession. In other words, they come in the guise of a medical journal, the articles are plausibly written, the scissors are used judiciously, and the subscription price is cheap, very cheap; indeed, it is so cheap that it precludes competition, and in many cases undoubtedly prevents their readers from subscribing to regular media of professional thought. Regular medical journalism, therefore, suffers by not receiving the support to which it is justly entitled while the profession is demoralized by reading the insidious or overt adver-

tisements of nostrums. We note right here that a great advance was made towards curing this evil, when the journal of the American Medical Association was instituted, which is sent free to each member of the Association, to which every reputable member of the profession is entitled to belong and should belong.

While we unsparingly condemn the prostitution of medical literature resulting from the publication of advertising periodicals under the guise of medical journals, we would declare that the crucial test of such publications must always be the character of the publication itself. We do not include in our denunciation such real contributions to medical literature as *The Drugs and Medicines of North America*, *The Index Medicus*, *The Ephemeris*, or *The Therapeutic Gazette*, although they happen to be owned and published by firms engaged in the manufacture and sale of drugs. Such journals do not come within the category of "periodicals devoted to advancing the interests of proprietary medicine manufacturers." On the contrary, they advance legitimate medicine and tend to elevate the profession. On this account we regret exceedingly the intemperate attack made a short time ago, by the editor of another medical journal, upon the *Therapeutic Gazette*, not on the ground that it was inefficiently edited or poorly conducted, but solely because it was published by a medical manufacturing firm instead of by a medical book manufacturing firm. It is evident that the writer of the editorial in question was not familiar with the character of the editors of the *Therapeutic Gazette*, or acquainted with the quality of that journal since they took full charge of it in January, 1885. As it is the only journal in this country devoted to therapeutics, and as it is ably edited by

two members of the Faculty of the Medical Department of the University of Pennsylvania, and as they possess the endorsement of an exceptionally large subscription list, we can only say that the criticism stands disarmed. In our estimation, such attacks tend more to injure their author than the subject of animadversion.

F. W.

PENNSYLVANIA STATE MEDICAL SOCIETY.—THE FINAL SESSION.*

THE LUNACY LAWS.

The first subject considered was Dr. H. C. Wood's resolution to appoint a committee of three to confer with the State Lunacy Committee, and if in their concurrent opinion any changes are needed in the State lunacy laws, this committee shall represent this body in urging the requisite legislation.

After brief debate, the resolution was adopted.

QUESTIONS OF ETHICS.

Dr. Packard offered a resolution setting forth that, in the sense of this body, the American Medical Association may, by a vote, set aside the code of ethics, and other medical societies may do likewise; and it is not in order for a member to call attention to any breach of the code of ethics.

He proceeded to state how he was set down upon yesterday in moving to refer the matter concerning the appointment of a State Board of Medical Examiners to the Judicial Council to decide a question of ethics. He insisted that he had been unjustly treated, and the action was in contravention of law.

Dr. Jackson moved to lay the resolution on the table, after a statement from the President that the action yesterday was apparently unanimously approved by the Society.

A LITTLE FUN.

Dr. Wood, of Pittsburgh, created much merriment by reading what he termed the "Hypocritical Oath," a travesty on the "Hippocratic Oath." He suggested that it be referred to the "Committee on Canals and Inland Navigation."

The proposed oath reads: "Having

been duly elected President of this Society, do you promise to hold the Pennsylvania Medical Society, as it has been held by many illustrious men, as a stepping stone to success, as a round in the ladder of fame, as a lemon to be squeezed, as a lever to raise your hopes, as a block and tackle to exalt your ambition, as a peacock's feather in a jackdaw's tail, as a lion's skin on a sheep, a spur on knighthood's heel, a garter on the leg of a courtier, a medal on the breast of a hero, and a convenient method of advertising your business; and that, as soon as your time expires, you will forever after turn your back on it and ignore it forever. Selah!"

MANAGEMENT OF THE INSANE.

Dr. Traill Green offered a resolution, which was adopted, instructing the Committee on Management of Asylums for the Insane to confer with the Legislature in reference to proposed laws of reform.

A discussion ensued on the preparation of the printed report of the Transactions of this Society. Finally, a resolution was adopted, rescinding former action, and hereafter the county reports will be summarized.

On motion of Dr. Corson, the obituary notices were ordered to be resumed.

Dr. Woodbury moved that all papers that are merely advertisements of specialists be excluded; but this was laid on the table. Dr. Parish said he had failed to obtain many papers from rural practitioners.

Dr. Jackson moved that the Recording Secretary be authorized to employ a stenographer to report the proceedings of the next session of this Society. Agreed to.

THE NEW OFFICERS INSTALLED.

President Levis thanked the members for their kindness and courtesy, and he retired from the chair, introducing his successor, Dr. Murdock, of Pittsburgh, who in a brief address expressed his heartfelt thanks for the high, unsought and unhopd-for honor of occupying the office filled by such great and good men as John W. Atlee, Samuel W. Gross, Hiram Corson and others. He assured the members that in Pittsburgh next year they would have a hearty Western welcome from a profes-

* The proceedings of the first three days were published in the Daily Editions of this journal.

sion that is harmonious—something he was sorry he could not say of the profession here. [Applause].

On motion of Professor Traill Green, the thanks of the Society were voted to all the officers, societies and persons who have been instrumental in entertaining the members in this city.

The Society then adjourned to meet at Pittsburgh, May 22, 1889. Then followed a general handshaking, and the hall was in a short time deserted.

NOTES FROM SPECIAL CORRESPONDENTS.

LETTER FROM PARIS.

STERILIZED AIR IN HYDRO-PNEUMOTHORAX

PROFESSOR POTAIN has contributed to the Academy of Medicine an important communication on injections of sterilized air into the pleura, for the treatment of pleuritic effusions after pneumothorax. Dr. Potain presented a patient who had appeared at his hospital service some ten months ago, with a pneumothorax and tubercular lesions of the third degree. To-day he is completely cured of his pneumothorax and does not present the slightest trace of phthisis that can be found, at least by the usual means of exploration. This result was brought about by injections of sterilized air into the pleural sac; a method now brought forward for the first time by the eminent Professor of Medicine of the Paris Faculty, and physician to Charity Hospital, Dr. Potain.

But to return to the patient. He is a man aged twenty-three years. After a rather severe attack of fever, the pleural effusion showed itself, about the eighth day, and increased progressively until it reached the scapula and second rib, about the ninetieth day. Dr. Potain then practised thoracentesis in the usual way, and as fast as the effusion was drawn off, introduced the sterilized air little by little so as to prevent expansion of the lungs. This is the original part of the treatment. Some ten years ago we did not think it was possible to do such a thing, but we know now that air is not dangerous by itself, but by the germs that it holds in

suspension. The air is sterilized by passing it through cotton wadding and through a bottle containing a strong solution of carbolic acid. A manometer is adapted to the apparatus so that the intra-pleural pressure is exactly measured. This first operation was made three months after the primary attack, and as was to be expected, the effusion was repeated; so that in the five months that followed, the operation had to be performed three times. The liquid extracted at first was purulent, but it soon became perfectly odorless, and the bacilli could no longer be found in it. A double canula was used, so that the substitution of sterilized air for the effusion was made in such quantity that the expansion was maintained. Finding at last that there was but little effusion remaining, it was thought best to draw off all and not inject any air, but on doing so the patient complained at once of pain and suffocation. The air was again injected and these symptoms ceased. Soon afterwards the effusion seemed to be altogether absorbed, and the patient is at present in apparently good health. This plan of allowing the lungs to resume their place slowly was found preferable, as no inconvenience was experienced by the patient; who was completely cured, in 288 days in all. Two other patients have also been thus treated by Potain; so that in this method we have a hope for such cases; which, as a rule, are rarely cured. Potain reports eleven cases of pneumothorax, with eight dead and three better, though the three saved were slight cases. Under the old treatment almost none are saved.

Weil, of Heidelberg, reports forty-four lost and two cured, by the old methods. Billroth tried the method of transforming a pneumothorax into a hydro-pneumothorax, by injecting liquids into the cavity, but his patients both died. Other surgeons have had similar results. All have tried to cure the pneumothorax, but according to Potain it is a malady that should not be cured; it will cure itself and is not dangerous. The dangerous element is the pleuritis that accompanies the presence of air in the pleural cavity, and which results from the penetration of some septic agent into the pleura.

Another danger is the unequal pressure of the liquid effused. Not only does the pneumothorax that comes with phthisis not aggravate the case, but it also seems to stop the advance of the tuberculosis, as the lung-tissue is in a state of repose.

The following are the rules laid down by Potain for using his new method: We should refrain, if there is no dyspnoea, or if the air accumulates so as to give a dangerous pressure; in which case draw off enough to make the pressure equal or slightly inferior to that of the atmosphere. It is possible to completely evacuate liquids effused in the pleural cavity, by substituting sterilized air in their place. This air, purified by filtering through cotton and carbolic solution, has no deleterious action on the cavity. This practice removes the serious danger arising from the presence of a large effusion in the pleural sac, and that arising from a rapid evacuation of such liquids. It also allows the lungs to expand gradually, and prevents frequent punctures of the cavity. Finally, it seems, from Potain's cases, to permit the lungs to gather strength by repose and inactivity, and favors the cicatrization and definite cure of tubercular lesions.

CARDIAC ECTOPIA.

Lannelongue, Surgeon to the Hospital Trousseau, had a very curious case of cardiac ectopia, which he skillfully replaced by an autoplasmic operation. The displaced heart was that of a little girl, who was six days old when she was presented to Lannelongue at the hospital. She was a weak baby, but took the breast well enough, and her various functions seemed normal. All her parts were natural except the thorax, which presented near the middle part of the sternum a circular ulceration, limited by a cutaneous border, raised around the edges and containing several fissures, which gave it a teat-like appearance. About the middle of the ulceration, deeply placed, was a yellow membrane, which seemed ready to fall off from mortification. It was detached in several places, and floating off, below laid the heart, in the centre of the body, under the neck. The finger could be placed on the ventricle, and

one could feel the hardening of the organ. The internal extremities of the clavicles terminated by an articular head with the first rib, and the superior part of the sternum was altogether missing, forming a sort of open triangle. When the child breathed the ulcerated surface rose and fell. The skin around it was red and angry. No trace of syphilis or phthisis was found in the parents. Lannelongue made a plastic operation which covered the part, and he was able to show the child, nearly two and a half months after the operation, in perfect health, with the chest as firm as possible. He hopes that as the heart develops it will be more covered and take a deeper place.

COD-LIVER OIL IN TUBERCULOSIS.

It is wonderful how the old medicines hold their own, all the same, notwithstanding that new ones are invented every day. M. Buequoy, presents to the *Société médicale des hôpitaux*, a patient that he had shown some nine months before covered with tubercular abscesses and in a marked cachectic state. Iodoform and etherized-iodoform, had been injected into him, but all to no avail; when the eminent doctor of the Hotel Dieu concluded that he would keep him simply on an ordinary dose of cod-liver oil, and nothing else. In a very short time the abscesses commenced to be absorbed, and cicatrize, while the hectic left him and the poor fellow began to pick up; and notwithstanding that he cannot be called a sound man to-day, he is so much improved that he goes to his usual labor. All this is owing to that old and faithful remedy, cod-liver oil.

DIABETES.

The same physician has had great success lately with the use of ergot in polyuria. In fact ergot and ergotine are having a considerable boom in therapeutics. Deboué, of Pau, gives it in typhoid fever with great benefit, and it is highly praised in heart diseases. Speaking of polyuria and diabetes, antipyrine, which is now to be called *analgesine*, has been given by Huchard in such troubles, with a wonderful diminution of the quantity of urine eliminated. But then Dr. Duhomme comes

along with a series of cases of people who have been eliminating some ten quarts of urine per day, and in two months time they got all right again by doing, what? *Why, just nothing at all!* It is sometimes astonishing how these expectation doctors take the wind out of the sails of some very promising new therapeutic novelty!

THUYA OCCIDENTALIS.

An old remedy once much used and called the tree of life, was brought again into notice here by Baratoux, who has employed it in tumors of the nose, larynx, and throat. This throat specialist finds that the ancient reputation of this remedy for vegetations, such as cancers of the os uteri, was well deserved, as he found that it rapidly produced, in twelve patients, who had various throat tumors, a diminution of the mass; with an entire absence of fetor in a case of epithelioma of the larynx, so that the patient was able to go two years without an operation. M. Dujardin-Beaumetz said that he had tried the drug on dermoid growths and found it of considerable benefit in such vegetations as warts. Another finds it of value in papilloma of the bladder, and gives twenty to thirty drops of it to stop hemorrhage of the bladder. But if the hemorrhage is abundant he prefers to commence the treatment with hamamelis Virginica.

HYPER-CHLORHYDRIA.

Germain Sée, with the untiring activity that characterizes him, has been pursuing his researches on the acids of the stomach. Ever since he has found in phloroglucine-vanilline a constant reagent, which detects, without fail, hydrochloric acid in the stomach, he has continued his study of the various stomach troubles. He finds now that what is called "brilliant green" will give a quantitative valuation of the acid, and that carbolized-perchloride of iron will detect lactic acid. Armed with these reagents and a stomach tube, his *chefs de clinique*, Durand Fardel and Albert Mathieu, have been making a series of trials on thirteen patients, who seemed to have a sort of hyperhydrochloria, that is, an excess of that acid in the stomach, besides the usual

symptoms of atonic dyspepsia. These patients have pain three to six hours after meals, generally checked by taking food. Others again feel pain at night, and only obtain relief by vomiting. This hyper-acidity can only be defined and exactly diagnosed by a chemical examination of the stomach contents, as mentioned above, and upon this will depend the treatment. In such acid stomachs all the meat-food and albuminates are well digested, but often the patients do not care for such diet, but insist on starch foods, which simply swell up in such an acid condition. The acid must be neutralized, but the proper moment must be taken to do it; that is to say, three or four hours after meals, when the hydrochloric acid has attained its maximum. Bi-carbonate of soda is then to be used in large doses (6 to 10 grammes are given). Another important point in alkalino-therapy is the fact that hot milk has just enough alkalinity to stop the painful troubles of this state, when they come on at night; and Sée gives some dozens of cases where a glass of hot milk brought about calm sleep at night, and no pain. It is not at all, however, his idea that a regular milk treatment is to be instituted, and he often talks of the deplorable custom that has arisen in medicine, of putting all patients, as he calls it, *at the tit*, which certainly in dilated stomachs does much more harm than good. M. Sée insists on the use of meat food in such cases, and the temporary abandonment of all starch foods and green vegetables. A necessary indication is to use evacuants, because if the intestines are allowed to be charged with fecal matters, and the gases are allowed to accumulate, they will come up by the pyloric orifice and get into the stomach, and all the treatment in the world will be of no avail. If atony of the stomach walls themselves persists, nothing is so good to increase their contractility as the use of hot drinks, such as tea, etc. Alcohol, on the contrary, will only increase the hyper-acidity and push the mucous membrane to destruction. Hydrotherapy, used cold, is also recommended by Sée, as well as gymnastics and massage.

THOMAS LINN, M.D.

CINCINNATI.

THE Thirty-ninth annual session of the American Medical Association was the event of last week, as the National Convention of State Boards of Health distinguished the week preceding. The Association met on May 7, and adjourned on May 11, after a very pleasant and harmonious meeting. It is believed that the pleasure of the occasion was greatly advanced and the concord assured by the considerate behavior of the "factions minority," which cannot be too highly commended; it either remained away from the session altogether, or so thoroughly effaced itself that its presence was not disagreeably impressed upon the ordinary observer. The meeting was not so large as some that have preceded it, less than a thousand having signed the register; but it was evident that the real workers were present, since it was generally conceded that the section-work was never better. The number, as well as character of the scientific papers, were both very gratifying; in fact, not a few excellent contributions were obliged to be read by title on account of the wealth of material. President Garnett filled the chair with dignity, and well earned the vote of thanks tendered him at the conclusion of the session for the ability, amiability and impartiality which he displayed in the performance of the duties of his high office. The recommendations contained in the President's address excited more than usual interest. He advised the adoption of the following measures, with regard to medical education:

Proposition 1.—"That a standing committee, to be called a Committee of Legislation, be appointed for each State, Territory and District of Columbia, to consist of five members of the medical profession in good standing, three of whom shall have no official connection with any medical school or college, whose duty it shall be to carry out as far as possible the following instructions:

"First.—That each one of said committee, or a majority thereof, shall attend the sessions of their respective Legislatures, or from time to time, as their duties may require, for the pur-

pose of using all honorable means look to the reduction of the number of medical schools in the United States, and a consequent diminution in the annual number of medical graduates; that as a practical measure to this end they urge the passage of a law requiring that in the future granting of charters for creating medical schools there shall be a clause in every such charter, requiring that such schools or colleges thus created shall demand a full term of four years' study, before granting a diploma to any student thereof, and that no student shall be admitted to matriculate who has not passed a satisfactory examination, both oral and written, in the ordinary branches of academic study; and further, that any college failing to show a greater number than fifty matriculates annually, for three consecutive years, shall forfeit its charter and be abolished.

"Second.—That they use all diligent effort to secure an ordinance creating in each State or Territory where no such Board at present exists, a Board of Medical Examiners, which shall have no connection with any medical school, and which shall be required to examine all applicants for license to practise medicine in their respective States; and that any person who may be detected in practising any branch of the healing art without a license granted by said Board shall be subject to such penalties as the law may provide. That this committee may be authorized by statute to select and nominate to the Governors of the States seven competent and learned members of the medical profession, to constitute said Board of Examiners, who shall have the exclusive power to issue licenses to practise the art and sciences of medicine and surgery.

Third.—"That the Chairman of said committees of five be required to submit at each annual meeting of this Association, a report embracing a full statement of what has been accomplished by each."

Proposition 2.—"That the Faculties of the several medical schools within the limits of the United States be urgently requested to call a Convention at some central point, for the purpose of consultation, and adopting some gen-

eral and uniform system of medical education more comprehensive and rigid in its requirements, and more in accord with the spirit of the age and the advanced progress of medical science, suggesting a four years' term of study, the requirement of a preliminary education including some knowledge of the classics.

"That any college or school which shall refuse to enter into such an arrangement as may be decided upon by said Convention shall be excluded from all connection with the American Medical Association, and its alumni not recognized as members of the regular profession."

These recommendations are radical; but it is evident to all that some authority should be created or organization constituted, which may exercise a wholesome restraint upon the formation of diploma shops, and which will check, to some extent at least, the reckless exercise of the right to confer the licenses to practise medicine upon a too-confiding and long-suffering people. One of the principal objects for which the American Medical Association was formed was to enable the profession to reform abuses with regard to medical education. The recommendations of Dr. Garnett have been well considered by him, and, therefore, will attract deserved attention and discussion. If the plan proposed be not the best one of attaining the desired end, possibly a better one may be formulated and reported at the next meeting.

The report of the Board of Trustees of the Journal of the Association was very satisfactory, and was received with applause. The Journal is now firmly established upon a paying basis, and instead of being an expense it is now published at a profit. The session wisely re-elected the Board of Trustees for the ensuing year.

The following amendments to the Constitution were adopted:

The first was a substitute for Section II of the Constitution relating to membership; it provided that members by application shall consist of such members of State, County, or District Societies as shall make application in writing to the Treasurer, accompanied by a certificate of membership in good

standing, signed by the proper officers, and accompanied by the annual dues. Such a member is to have all the privileges of a permanent member.

The second amendment was of Section V of the Constitution, and provided that the Board of Trustees shall consist of nine members, three to be elected every year, for a three years' term of service. Both of these were carried. A third amendment, changing the present method of selecting the Nominating Committee, was, after considerable discussion, laid on the table until the next meeting.

The addresses by Dr. E. M. Moore, on Surgery; Roberts Bartholow, on Medicine; and H. P. Walcott, on State Medicine, were well received and were a decided improvement over the former method of addresses by Chairmen of Sections. Although the former plan was well conceived and had much to recommend it, yet it failed from absolute lack of time to receive the reports of progress in the different departments of medicine.

An unexpected success was scored by the report of the Committee on Dietetics, E. A. Wood, M. D., Chairman, an abstract of which appeared in our last number. The report of the Sub-Committee on Infant Feeding also attracted considerable interest, as the first attempt by the Association to formulate principles of dietetics.

Dr. John B. Hamilton, Supervising Surgeon-General of the United States Marine Hospital Service, Secretary of the Nominating Committee, read the report of the Nominating Committee, which was adopted amid loud applause:

President—Dr. W. W. Dawson, of Cincinnati.

First Vice-President—Dr. W. L. Schenck, of Nebraska.

Second Vice-President—Dr. Frank Woodbury, of Philadelphia.

Third Vice-President—Dr. H. O. Walker, of Detroit.

Fourth Vice-President—Dr. J. W. Bailey, of Georgia.

Treasurer—Dr. Richard J. Dunglison, of Philadelphia.

Permanent Secretary—Dr. W. B. Atkinson, of Philadelphia.

Librarian—Dr. C. H. A. Kleinschmidt, of Washington.

The address on General Medicine, for 1889, will be delivered by Prof. Wm. Pepper, of the University of Pennsylvania.

The address on General Surgery, by Dr. P. S. Conner, of the Ohio Medical College.

The address on State Medicine, by Prof. Wm. H. Welch, of the Johns Hopkins University of Baltimore.

The next place of meeting is Newport, Rhode Island, Dr. Horatio Stover, Chairman of Committee of Arrangements, and Dr. W. Thornton Parker, Secretary.

The entertainments given by the physicians of Cincinnati were very much enjoyed, especially the reception at Art Museum, in Eden Park, and the concert by the Apollo Club, at Music Hall. w.

REVIEWS AND BOOK NOTICES.

THE LANGUAGE OF MEDICINE. By F. R. CAMPBELL, A. M., M. D. D. Appleton & Co., New York 1888.

The object of this work is to provide the medical student who is not a literary collegiate with a means of acquiring, the origin, etymology, pronunciation and meaning of the technical terms found in medical literature. The author takes up the subject quite thoroughly, dividing his work in parts as follows: Part I. Origin of the language of medicine, containing chapters on the historical sources of the language of medicine; the origin of words, and the life and death of words. Part II comprises the Latin element in the language of medicine; in it is found orthography, orthoepy, the different declensions of nouns, etc., the conjugation of verbs, etc. Part III takes up the Greek element in the language of medicine; and Part IV elements derived from the modern languages.

The book is gotten up in excellent style, and is what has been needed for many years, especially before the demand for higher education and preliminary acquirements in the medical schools, which is now really forcing those desiring to study medicine and

to become prominent in their profession to become graduates in literary and scientific schools before entering upon their studies in medicine.

There are two chapters, those of "Orthoepy" and "Words commonly mispronounced," which are so behind the generally accepted theory of the world at present, that it causes us to take issue with the same. When England thought she was monarch of the world and could change and regulate everything to suit her fancy, one of her attempts was upon the pronunciation of vowels in the Latin and Greek languages, giving them those of the English vowels, differing from the other languages of the continent, especially the Italian, which arose from the Latin, being really a descendant therefrom, and in which the pronunciation of the vowels was naturally carried down. The English pronunciation was carried over to this continent by the early settlers in New England, and thus taught in the schools established. All this has been wrong; and as a dead language should be pronounced as near as possible to its original, when philologists are now united upon the fact that the pronunciation from Rome is the correct one, and even the English schools have given up their arbitrary methods, as well as most of the higher schools in this country; why should the medical profession differ from the other learned professions in their Latin and Greek?

The Latin language with the Roman pronunciation of the vowels is soft and liquid in its forms and sound, while the English method is harsh and sharp. The flat *a* in fate is not as soft and resonant as *a* in father, so with the *e*, not as see, but say; *i* not *ei* but *e*, and so on giving that expression of sound which distinguishes the soft and pleasant Italian.

This is the only part of the book which to our minds is incorrect, and we know that the great majority of graduates of the literary schools of the present day will not accept the pronunciation as given by the author. The discourse on page 66 does not add much to the strength of his argument, but weakens it materially, especially when he at once calls the man who

does not think and believe with him, Prof. *Blowmuck*; one perhaps who has had the advantage of equally as good a Latin training as he has, and no doubt in an older, and perhaps a more thorough school, but not tainted with "English, you know."

We would advise all students to get a copy of the book as there is much interesting and instructive to learn in it; but to guard themselves against the pronunciation as recommended of the vowels.

LETTERS TO THE EDITOR.

ENTERO-COLITIS.

Editor MEDICAL TIMES:

What is the best treatment for enterocolitis in infants? I have been using bismuth, opium and chalk mixtures, Dover's powders, etc., but without much success. I, as a rule, have the misfortune to lose one-half or more of my little patients. W. A. THOMPSON, M.D.

Logan's Store, N. C.

[The most successful treatment we have ever tried is that by the sulphocarbonate of zinc, gr. $\frac{1}{4}$ to gr. j every two hours. The diet should be strictly limited to raw white of egg, raw scraped beef and the best of the prepared foods: milk being absolutely forbidden.—Ed.]

HEMOPTYSIS FOLLOWING COLITION.

Editor MEDICAL TIMES:

It is a strange coincidence that when I saw "J. W. C.'s" letter in May 15th's issue, I was just about to write an account of a similar case.

I have a female patient, B. J., who is consumptive, but now the lung seems to have healed to a certain extent. She is not annoyed, as a general rule, with cough or indisposition of any kind. About twice a week, lately, she has been sending in the night for me to stop hemorrhages from her lungs. After questioning her, I find that the hemorrhage only comes after sexual intercourse; sometimes immediately after the act is finished.

This woman is in almost perfect health and forgets that she ever had

pulmonary disease, she is troubled so little with any of the usual symptoms. The cause of the hemorrhage is now easily understood. JNO. W. C.

DIAGNOSIS WANTED.

Editor MEDICAL TIMES:

Miss B., age 10. Bright and well on Sunday. Was taken last Monday with chill, followed by fever. Her parents on same day took her out riding, thinking it for her good. During the ride she was listless and drowsy; complained of pain in back and breast, which was relieved by mustard-plaster. She continued worse until I was sent for, on Tuesday, p. m., when I found her very ill; temperature, $103^{\circ}.2$; pulse, 120. Prescribed fever mixture.

Wednesday, A. M., much worse; temperature, $104^{\circ}.6$; pulse, 140. Continued fever mixture, and added antipyrine, gr. xx, to be taken in five doses, one every hour. Bowels constipated; was relieved with one-sixth grain hyd. chlor. mit., four doses.

Called in p. m., and found her temperature 103° ; pulse, 120; has been slightly flighty; at one period felt quite well; wanted to get up, but soon fever supervened again. She eats soft food well; no rash or pain complained of.

Thursday, A. M., seems much better; pulse, 108; temperature, 102° ; had a good night's rest; blisters are breaking out around the mouth. Ordered five grains antipyrine every three hours, until 20 grains were taken. Also,

Tr. digitalis.....℥ xij
Quin. sulph.....gr. xx
Pulv. ipecac.....gr. iij

In two ounce mixture. Teaspoonful every three hours.

Friday, 10.30 A. M. Seems better; pulse, 96; temperature, $101^{\circ}.2$; had two motions of bowels last evening; the mother thinks that a little elderberry wine I permitted was the cause. About 6 this A. M., the child had a flighty spell, started to get up on the bed and run for an imaginary person. This cerebral symptom lasted only a moment. She has a very slight cough, which is loose, but no pain or rash on any part of the body. She never has had any chill since I saw her. This

A. M. the lower limbs were moist at intervals, face and forehead cool; no nausea or vomit or diarrhœa; no coryza.

Please diagnose my case and give comments and prognosis. G. W. C.

[Probably you have here a case of pneumonia. We would recommend reducing the dose of antipyrine to two grains.—Ed.]

MISCELLANY.

THE CHEMICAL INCOMPATIBILITY OF ANTISEPTIC AGENTS.

BY ROBERT BOXALL, M.D., M.R.C.P.,
Physician to the General Lying-in and to the Samaritan Free Hospitals.

THE necessity of employing antiseptic agents in solution of definite strength will be, I presume, on all hands conceded; for, if the solution be too attenuated, the object in view will fail in its accomplishment, and, if too concentrated, considerable damage will in many cases be wrought, not only locally on the tissues to which the application is made, but also on the body generally as the result of absorption. The borderland between safety and success is, in many instances, a very narrow one. The possibility of reducing the strength of the solution, or of altering its nature through the chemical incompatibility of the materials employed, has hitherto received but little attention. The important practical bearing which this may exert on their efficiency as antiseptics must prove my apology for drawing attention to the matter.

By way of example, I have selected five of the more important antiseptic agents in general use, and, for ready reference as to the incompatibilities of each, the results of the experiments are presented in a tabular form, showing the action not only of these agents on one another, but also of certain lubricants with which they are frequently combined and brought into contact, and of soap with which they are apt to be contaminated in the process of washing and disinfecting the hands and instruments.

In view of the practical utility of these observations, the experiments were made, not with concentrated materials, but with solutions of the

strengths usually employed in practice, and were carried out at temperatures not exceeding that of the body.

	1. Sublimate.	2. Carbolic.	3. Iodine.	4. Salicylic.	5. Cond.	6. Olive Oil.	7. Vaseline.	8. Glycerine.	9. Soap.
1. Corrosive Sublimate Solution (Perchloride of Mercury)	—	—	1	—	—	—	—	—	2
2. Carbolic Solution (Phenol)...	—	—	3	4	5	—	—	—	—
3. Iodine Solution (Iodine and Iodide of Potassium).....	1	3	—	—	—	—	—	—	6
4. Salicylic Solution (Salicylic Acid).....	—	—	—	7	—	—	—	—	8
5. Cond's Fluid (Permanganate of Potassium).....	—	4	7	—	9	—	—	10	11

The following incompatibilities were observed:

1. *Corrosive Sublimate and Iodine.*—No precipitate of mercuric iodide is at any stage of the admixture formed. A small addition of sublimate solution fixes the free iodine, as may be seen by the immediate bleaching of the iodine solution, and confirmed by the subsequent addition of a little starch paste, which produces no blue coloration. One part by volume of sublimate solution (1 in 1,000) is just sufficient to fix the whole of the free iodine in 4 parts by volume of iodine solution (tr. iod. B.P. 3j in Oj). N.B.—This forms a rough and ready test for the strength of sublimate solutions.

2. *Corrosive Sublimate and Soap.*—An insoluble soap is produced even when a neutral soap solution is used. This is of special importance in consideration of the small admixture with soap which is required to throw down the whole of the mercury from solutions of the strength usually employed.

3. *Carbolic and Iodine.*—An exceedingly small admixture with phenol is sufficient to fix the whole of the free iodine as in (1). One part by volume of carbolic solution (1 in 20) removes the whole of the free iodine from 2,000 parts by volume of iodine solution of the strength indicated above.

4. *Carbolic and Cond.*—This is perhaps the most generally recognised of these incompatibilities. Admixture with phenol immediately turns permanganate brown.

5. *Carbolic and Olive Oil.*—This is of importance and of special interest when taken in conjunction with the researches of Koch, of Berlin, who has

shown that bacillus spores are capable of living and developing after having been immersed in carbolised oil (1 in 20) for 4 months. The oil appears to enter into some combination with and to fix the phenol. If a drop of tr. ferri perchlor. *B.P.*, be shaken up in a test tube with carbolised oil (1 in 20) no change is found to have been produced in the iron as it gravitates to the bottom. Moreover, if carbolised oil be shaken up with a few drops of water, the water allowed to separate out at the bottom of the tube and a drop of iron solution conveyed into it, the characteristic purple coloration with phenol is not produced unless the shaking has been very prolonged and energetic, and then only to a slight degree. By strongly heating the carbolised oil phenol is again set free, and the above reaction can then be obtained.

6. *Iodine and Soap*.—No action is produced by a neutral soap solution, but ordinary soap, which contains an excess of alkali, at once removes the free iodine.

7. *Salicylic Acid and Condy*.—A very dilute salicylic acid solution (1 in 800) slowly removes the color from permanganate.

8. *Salicylic Acid and Soap*.—A drop of dilute salicylic acid solution gives a white precipitate even when a neutral soap solution is employed.

9. *Condy and Olive Oil*.—When permanganate solution is shaken up with olive oil its violet color is changed to brown.

10. *Condy and Glycerine*.—When permanganate solution is added to glycerine its color slowly changes.

11. *Condy and Soap*.—This incompatibility is also generally recognised. Soap, even when a neutral solution is employed, readily turns permanganate brown.

I do not pretend to any precise knowledge of the bodies produced, some of which may, for all I know, possess powerful antiseptic properties. But until this point is settled by direct observation, when chemical incompatibility exists, the antiseptic properties of the original solution must be regarded as weakened, if not wholly destroyed.

The moral conveyed by the above

experiments is obvious; avoid as far as possible the admixture of antiseptic agents and their contamination with lubricants and with soap when incompatibility exists. For instance, in employing corrosive sublimate it is advisable to use the same solution for disinfecting the hands (carefully avoiding contamination with soap) and for cleansing instruments¹ as for irrigating the parts, to employ a mercurialised lubricant and to use alembroth dressings. If for any reason it becomes requisite to substitute one antiseptic agent for another, a second should be chosen which is not incompatible with the first, and the same precautions should be observed throughout the series.

The above observations deal with one phase only of the subject. I am content to leave to more able hands the elaboration of further details. The second question—the chemical nature of the bodies produced—is for the chemist to answer; the third point—the antiseptic value of these bodies—still remains for the germiculturist to determine. When these points have been settled and acted upon, less scepticism as to the value of antiseptic agents may be looked for. The fault lies not so much with the antiseptics themselves as with the unscientific method in which they are often employed.—*British Med. Jour.*

ANTIDOTE FOR SERPENT VENOM.—Dr. H. C. Yarrow, Curator of the Department, Reptiles, U. S. National Museum, (Forest & Stream) has made a series of experiments which go far to dissipate the claims of permanganate of potassa as an antidote for rattle-snake venom. Even when a five per cent. solution of the salt was injected immediately after the venom, the needle of the syringe not having been removed from the puncture made in injecting the venom, the result was the failure of the alleged antidote.

Whether jaborandi will prove more effectual remains to be demonstrated.

¹ Here, again, a caution is requisite, for copper and steel, unless nickel-plated, are apt to decompose the solution and to cause precipitation of the mercury in a free state.

but Yarrow's experiments tend to show that this drug is of real antidotal value.

THE RELATIVE FREQUENCY OF EAR DISEASES IN THE WHITE AND COLORED RACES IN THE UNITED STATES.—Dr. Burnett, of Washington, D. C., has been making an examination upon the patients attending his clinics at the Central Dispensary, and he finds that the negro is not subject as a race to ear diseases as frequently as the white. It has been generally accepted that among the white race ear diseases form from twenty to twenty-five per cent. of cases observed in clinical service, while in the negro he found about ten per cent. While they are apparently more prone to the acute catarrhal diseases, and are quite as frequently affected with chronic purulent otitis media, the negroes rarely suffer from dry catarrh, which is the cause of so much of the incurable deafness in the white race. Those who do suffer from this malady have it in a mild form, and never, according to his observation, attain to that amount of deafness which renders ordinarily loud conversation difficult to understand. Inspissation of the cerumen seems to affect both races in about the same proportion. Negro girls are more often affected with tumors of the lobules than the white.—*Archives of Otolaryngology*,

BRASS-WORKERS' DISEASES.—In the *British Medical Journal*, Simon gives the results of his observations concerning the peculiar affections to which brass-workers are subject. These men rarely attain old age, and provident societies dislike to receive them as members.

When, in melting the metals together, the zinc is added to the molten copper, a dense cloud of zinc oxide rises. The effect of this upon the mixers varies greatly with the degree to which ventilation is secured. These men are subject to what is called brass-ague. The author differs with preceding writers, who described this as an intermittent affection, with the chill, hot and sweating stages, such as occur in ordinary ague. Simon found that the subject becomes languid, depressed and very cold. He is pale, almost in collapse, his face covered by cold pers-

piration, he shivers, his teeth chatter and he is restless and anxious. He has headache, is nauseated and complains of muscular pains. He goes home, drinks freely of milk and goes to bed. These symptoms continue until vomiting occurs, when sleep or recovery follows, with debility on waking.

These symptoms are just such as would be caused by the ingestion of an irritant metal in large amounts.

It is only when fresh to the work that brass-workers suffer from "ague," but they become inured to the effects of the poison, as do arsenic eaters. The tartar is constantly green, and no matter how thoroughly the teeth may be cleaned, the green coloration remains. This is due to the copper. White hair is colored green, and the underclothing assumes the same tint, from the perspiration.

Brass-workers suffer greatly from bronchitis, in common with all workers in dust. They die from this, or from fibroid phthisis. Nervous disorders do not occur any more frequently than among other classes.

Digestive disorders are very prevalent; such as dyspepsia, anorexia, gastro-intestinal catarrh, nausea, vomiting, metallic taste, thirst, colic, constipation and diarrhœa. These men are often hypochondriacal, complaining of headache and muscular pains. The only distinctive point about these disorders is their obstinacy to ordinary treatment, and ready yielding to iodide of potassium.

The ague is probably due to both copper and zinc; the chronic affections to the copper alone.

POISONOUS DYES.

Prof. B., contracted blood poisoning by wearing red flannel. He consequently made a thorough chemical examination of the garment and found that it was dyed with coraline, a notoriously noxious dye.

It will probably be interesting to some of your readers to know what coraline is. This dye derives its name from its resemblance to the red coral which is largely used in the manufacture of beads and cheap jewelry. It is produced by heating a mixture of sul-

phuric, carboic and dry oxalic acids. This mixture is not soluble in water, but only in alcohol and caustic soda. There is no doubt that it is poisonous. Experiments which have been tried with it in France showed that three grains swallowed by a dog killed the animal within thirty-six hours; while a dose of less than three grains killed a frog on the spot. French physiologists give reports of several cases of blood poisoning by wearing garments which were dyed with coraline. There should be a law against the use of this and similar dyes for coloring wearing apparel, as the only reason for using it is its cheapness.

It is one of the substances which will be used by manufacturers who work under conditions which stipulate low prices and who do not care what it costs to serve their purpose, be it even a human life.

Manufacturers who have used coraline hitherto can no longer plead ignorance after the dangerous properties of the dye have been shown. Whosoever dyes flannels with it commits the same crime as he who adulterates food. This shows how very important it is to be most careful in selecting woolen underwear. It is advisable to buy only natural or bleached woollens and reject all those which are dyed.

—*Hosiery Review.*

NOTE ON NAPHTHOLS.

[Mr. Louis Genois furnishes the following reply to the query, "What is Naphthol?"]

Naphthols are compounds derived from naphthalin by the substitution of one molecule of hydroxyl (HO) for one atom of hydrogen.

Naphthalin is regarded as a derivative of benzol, its graphic formula representing it as two benzol rings adhering by one side. The hydrogen atoms of naphthalin are divided into two groups, in one of which they are written with a small h, and in the other with a capital H. Now derivatives of naphthalin in which the *h* hydrogen atoms are replaced by other elements or radicals, are called *a* (alpha) derivatives (such are compounds containing chlorine, bromine, nitric acid, etc.),

while those in which the H hydrogen atoms are replaced are called *b* (beta) derivatives. When, however, naphthalin is treated with sulphuric acid, both varieties are produced, unless very elevated or long-continued heat be applied, in which case only the *b* variety results.

The usual method of manufacture is as follows:

Naphthalin and sulphuric acid are heated together for several hours, the mixture poured into a large quantity of hot water, the excess of naphthalin filtered off and the solution saturated with lead carbonate; on evaporation the *b* salt crystallizes out first, the *a* salt last; the former is soluble in boiling alcohol, the latter is not, hence they are easily separated; from these lead naphthalin sulphonates the respective acids are prepared, and from the acids fused with an alkali, two naphthols are made—the alpha and beta, and these are the only possible naphthols.

a Naphthol is soluble in alcohol and ether, but only slightly soluble in hot water.

b Naphthol is soluble in alcohol, ether, chloroform, benzol, in oils and in fats, also in diluted alcohol; it is soluble in about 1000 parts of water; when pure it is quite white and in beautiful shining acicular crystals; it is sublimable, and its solution when treated with ferric chloride, separates *white* dinaphthol, while from the *a* variety, ferric chloride precipitates *violet* dinaphthol (New Remedies, March, 1883).

b Naphthol is the article usually kept in drug stores, and dispensed by apothecaries on prescriptions, directing simply naphthol. It has been recommended as an efficient and agreeable substitute for tar, either in ten per cent. alcoholic solution or in fifteen per cent. ointment made with petrolatum; it is said to be readily absorbed by the skin, and is eliminated in the urine partly unchanged and partly as naphthol sulphuric acid. I imagine that a naphthol cotton would be a desirable and useful agent to surgeons; it can easily be prepared by impregnating absorbent cotton with an alcoholic or ethereal solution of naphthol and drying. Naphthol is sometimes employed in the crude state for disinfecting by simply dropping it on an iron plate heated by an alcohol lamp.

HYSTERIA.

"What do you think of this as a treatment for Hysteria?" asked a clever and witty country doctor the other day. "Several years ago I was hastily called to see a woman said to be on the verge of death from convulsions. Sure enough, when I reached the bedside, she was writhing terribly in the bed, and contending against three men who were holding her down; one had her head; another her hands; and a third was putting his whole weight on her feet, and all appeared to have about as much as they could do.

"I knew that the woman had been treated some years, without effect, for these attacks. But the moment I saw her, I decided I had to deal merely with a manifestation of hysteria.

"Let her go," I ordered the men; "if she has another attack, I'll hold her. 'Why, you can't, she'll kill herself,' said the husband. 'No she won't,' I replied. 'I'll tend to her.'

"Now," I continued to the men, 'you go down stairs and heat a flat-iron, heat it red hot; I can cure this.'

"The men went down and the woman lay there quietly for a short time, with her eyes tight shut; for she had begun to quiet almost as soon as I entered. Finally she opened her eyes slightly, and said faintly, 'That will hurt, wont it?' 'Hurt!' I exclaimed, 'why, Maria, the pain will be awful, positively awful; but it is the only thing for you. Maria,' I continued solemnly, 'I am going to put that red-hot iron right on your stomach. It may kill you, that's what I fear; but if it does not kill you, I am sure you will never have another attack.' The woman visibly improved. Then I went down stairs, where I found the men, who took the matter in earnest, had an iron on the stove and were stirring the fire.

"Look here," I said to the husband, 'I don't mean this,' and then I explained my object; 'but I want you to rattle the iron on the stove, and after a little, call up telling me the iron is ready.' I returned to the patient's room, and found her still improving. 'Now, Maria,' I asked, 'do you feel as if another attack were coming on?' Just at that moment the iron rattled down stairs.

'No, no,' she hastened to say, 'I feel ever so much better, I'm sure.' A few minutes afterward the husband called from below, 'the iron is ready, doctor.' The woman shuddered. 'Wait a minute,' said I to the husband; and then to the patient, 'are you absolutely sure, Maria, that you have not the slightest symptoms of another attack. If you think you have, I will apply the iron; for this trouble must be cured.' 'Oh, doctor,' she promptly answered, 'I am perfectly sure that there is not the slightest symptom in the world. Indeed, I feel quite well.'

"I staid an hour," added the doctor, "on the lookout for that 'slightest symptom;' but it did not come, and none has come to this day."

E. B. S.

FOR SEA-SICKNESS. (*Rouquette*).—

R	Antipyrin.....	gr. lxxv
	Cocaine muriat.....	gr. jss
	Caffein.....	gr. iv
	Strychnine sulphat.....	gr. $\frac{1}{100}$
	Sp. vini Gall.....	3 ijs
	Aq. destill.....	3 xxijss

M. S.—A spoonful to be taken before going on board, and twice subsequently during the day, or three teaspoonfuls during the day.

—*Revue de Ther.*

CREASOTE FOR PHTHISIS.—

R	Creasoti.....	13 grammes.
	Tinct. gentian.....	30 "
	Sp. vini rect.....	250 "
	Vin. Tokayens.....	1000 "

M. S.—A dessertspoonful three times daily, in water.—BOUCHARD in *Revue Med. de Louvain*.

GUAIACOL FOR PHTHISIS.—

R	Guaiacol puriss.....	gr. xv-xxx
	Aque dest.....	3 vj
	Sp. vini.....	3 vss

M.—To be kept in a black glass.

S.—A tea to a dessertspoonful two to three times a day, in a cup of water, after meals.—SAHLI in *Revue Med. de Louvain*.

FOR CHRONIC INFANTILE BRONCHITIS.

R	Creasoti.....	gtt. iv to xiv
	Sp. etheris.....	gtt. vj to xij
	Aque dest.....	50 grammes.
	Sachari.....	10 "

M. S.—A teaspoonful every two hours.

—*Revue de Ther.*

FOR GONORRHEA.—

R	Cocain. hydrochlorat.....	gr. viiss
	Quinin.....	gr. xv
	Glycerini pur.....	3 vj M xv
	Aque dest.....	3 xvij M xlv

M. S.—For injection.

—*Revue de Ther.*

FOR PRURITUS ANI.—

R Cocain.....30 centigr.
Vaselin.....30 grm. M.

—BESSMER, in *Gazette de Gynec.*

FOR INFANTILE URTICARIA.—At bedtime, anoint with the following pomade:

R Chloral hydrat.,
Camphoræ pulv.,
Acaciæ pulv.....āā. 3 j

M.—Triturate until liquefied and then add one ounce of cerate.

This relieves the pruritus, permits the infant to sleep, and puts a stop to scratching. In the morning anoint with:

R Acid. carbolic.....gr. vijss
Amyli glycerol.....3 j

M.—The child must be clad next the skin in linen.—*Revue de Ther.*

MEDICAL TREATMENT OF SUBINVOLUTION.—Cheron has recommended the use of deep ignipuncture, with numerous points. With this he recommends the following medical treatment:

1. Bi-quotidian frictions with chloroform over the kidneys.

2. Salt baths.

3. Before each meal, ten drops of this mixture:

R Tinct. rhei.....30 grm.
Vin. antimonii.....4 "
Potassæ acetat.....8 " M.

MENSTRUAL HEMICRANIA.—At the beginning of menstruation, take a spoonful of the following, repeated three or four times daily:

R Tinct. gelsemii.....50 grm.
Syrupi.....1000 " M.

—DUJARDIN-BEAUMETZ, in *Gazette de Gynec.*

LOCAL ANÆSTHETIC FOR MINOR OPERATIONS.—

R Chloroformi
Sp. vini rect.
Aq. coloniensis.....āā part æq.

The anæsthesia is less prompt than when the anæsthetics are given by inhalation; but the subjects find the process more agreeable and less dangerous.—*Revue de Ther.*

FOR EPILEPSY. (*Campbell Black*).—

R Camphor monobromid.....gr. vijss
Ext. belladonnæ.....gr. vj
Ext. gentianæ.....q. s.

M. et in pil No. xii div.

S.—One to be taken night and morning.

In bad cases the dose is increased to three pills.

FOR WHOOPING-COUGH. (*Ruthe*).—

R Acid. phenic.....gr. iij
Alcohol.....gr. iij
Tinct. iodi.....gtt. xx
Aq. menthæ.....3vj 3ij
Tinct. belladonnæ.....3 j
Syrupi.....3 x

M. S.—A teaspoonful every two hours.

A number of Dr. Hiram Corson's personal friends tendered him a complimentary reception during the meeting of the State Medical Society. The leading feature of the occasion was the reading of Dr. Wistar's poem, which we print below.

DR. HIRAM CORSON.

In recognition of his distinguished professional labors, covering a period of over sixty years.—RES CRESCUNT, VIRTUTE DUCE.

I

Far up the Perkiomen hills,
By Schuylkill's laughing stream;
From Pennepack's lazy flow
To Wissahickon's gleam;
For sixty years through sun and storm,
Hard pressed by night and day,
Regardless only of thyself,
Thy course unwearied lay.

Thy life was like the crystal spring
Fed by the mountain snow
That makes the face of nature glad
With verdure by its flow;
For blessed are the feet of those
Who health and healing bring,
Who bid the weak be strong again,
The heavy-hearted sing.

In thee alike the rich and poor
Beheld a friend in need,
Who self forgetting at their cry,
Would haste with earnest speed.
Thy very presence was enough
To stay the sinking heart
And often hope and health inspire,
Without a touch of art;

Thy words and smiles would mollify
The pains and ills of life,
And often leave the troubled mind
More fitted for the strife;
For thou wouldst cheer the lonely heart
With counsel kind and true,
And oft achieve with sympathy
What science could not do.

Yet thou hast skill and science, too,
And learning's latest lore,
For thou hast ever, like the bee,
Toiled to enrich thy store,
And knowledge gleaned on every hand
From youth to present age,
From men and books, but most of all,
From Nature's open page.

To shun thy well-directed aim—
 Afraid to stand the fire—
 The lurking forms of foul disease
 Before thee would retire;
 The Hydra-headed Pestilence
 Would oft forsake its prey,
 And hungry and unwilling own
 Thee master of the day.

II.

From far and near we honor thee—
 No fossil of old time,
 But fresh and strong in wisdom yet,
 As in thy manhood's prime;
 The glory of the past is thine,
 And of the present, too;
 The beauty of the winter's rime
 And of the summer dew.

If thou wast always tender, kind,
 Sincere, forgiving, true,
 Yet something of heroic stuff
 Was in thy nature, too.
 Among the first thou didst espouse
 Thy sister's cause as thine,
 And bravely held no sex controlled
 The healing art divine.

As far and wide, with single eye,
 Thrice welcome thou didst go
 To soothe thy brother's bed of pain
 And still the voice of woe,
 With humble aim 'twas thine to walk
 The path the Master trod,
 And prove each day by doing good
 Thy mission was of God.

Not like the sudden meteor glare
 That dazzles and is gone,
 But, like the steady orb of night
 That guides the seaman on,
 Thy life a beacon light has shone
 To guide us on life's main,
 And teach us, by thy modest worth,
 That only good is gain.

The heat and burden of the day
 Thy head has borne too long,
 'Tis time to carry home thy sheaves
 And join the evening song,
 With all the fruits that wait on age—
 Love, honor, countless friends,
 And joy all other joys above,
 The peace thy conscience lends.

THOMAS WISTAR.

JUNE, 1888.

OBITUARY.

JOHN WIEGAND SNOWDEN, M. D.

Dr. John Wiegand Snowden, was born in Philadelphia, April 23, 1823. He was the son of Thomas and Sarah M. Snowden. His father was for over thirty years associated in business with John Wiegand, as manufacturers and importers of surgical instruments in Philadelphia.

Thomas Snowden took an active part in public affairs in that city prior to 1854, and represented the old "South Mulberry" ward, for

many years in its common and select councils, serving for ten years as president of the former. The firm of Wiegand & Snowden was one of the earliest in that line of business in the United States, which is still carried on by William Snowden, son of Thomas, and younger brother of Dr. John W. Snowden.

The doctor was educated at the "Engle" classical school in Philadelphia, assisted Dr. George McClellan as Demonstrator of Anatomy, and graduated from the Medical Department of the University of Pennsylvania, in 1844. He commenced the practice of medicine in his native city, but soon removed to Middletown, Delaware, and thence to Chew's Landing, Camden county, New Jersey. He was of feeble constitution and subject to pulmonary diseases. Learning from the natives that a residence in the barrens of New Jersey called the "Pines," was a sovereign remedy for these affections, he removed in 1846, into what was then the centre of that wilderness, near where is now the Ancora station on the Camden and Atlantic Railroad. In June, 1849, he joined the Camden County Medical Society, and was at his death the oldest member on its roll. He had filled all the important offices in the Society, having been twice its president, and for nine years chairman of its "standing committee," resigning in 1887 in consequence of ill health. He was a member of the New Jersey State Medical Society, and its president in 1882, a member of the American Medical Association and of the Obstetrical Society of Philadelphia. A few years prior to his death he removed from Ancora to Hammonton, six miles below the former place, and just within the limits of Atlantic county, where he died May 28, 1888.

At a special meeting of the Camden County Medical Society, held at Camden, N. J., May 30, 1888, the following was ordered to be placed upon the minutes:

"In the death of Dr. John W. Snowden, who was a member of this Society for thirty-nine years, who rarely was absent from its meetings, who filled its highest posts of honor, maintained its dignity and used his rich fund of experience and ripe judgment in the interest of harmony, this Society has sustained a great loss.

"We commend to the members of the Society this bright example of the *true physician*, one who for forty years by night and by day, in sunshine and in storm, devoted talents worthy of a more brilliant theatre, to the people of a sparsely settled district, and ministered with great medical skill to alleviate their sickness and suffering, and often with true Christian piety, furnished them with spiritual consolation.

"We extend to his bereaved family our sincere sympathy in their sorrow and loss, knowing that, although his place cannot be filled, their and our remembrance of him will be one of who in all his relations in life, both public and private, was the embodiment of purity, honor and dignity.

H. GENET TAYLOR, M.D.,	} Committee.
E. P. TOWNSEND, M.D.,	
E. L. B. GODFREY, M.D.,	
DANIEL STROCK, M.D.,	
J. F. WALSH, M.D.,	

PHILADELPHIA MEDICAL TIMES.

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JULY 2, 1888.

VOL. XVIII

ORIGINAL COMMUNICATIONS.

SUPRAPUBIC LITHOTOMY: WITH A REPORT OF THREE CASES.

BY THOMAS W. KAY, M.D.,
Surgeon to the Johanner Hospital, Beyrout, Syria.

THIS operation was first performed in 1560, by Peter Franco, of Tourrieres, in Provence, on a child two years of age, on account of the large size of the stone; since which time it has had a hard struggle to find its proper place among recognized surgical procedures. Franco appreciated its dangers, and condemned its performance except in cases of very large calculi. Since his time it has been repeatedly revived, and as often abandoned. An excellent account of its early history is found in Sabatier's "Médecine Opératoire," published in Paris, in 1824. Very recently it has again come before the public, and at present has its enthusiastic admirers both in Europe and America. Nor do they limit its adaptation to large calculi; but the more enthusiastic seem to think that for moderate-sized calculi it is the operation, being safer than perineal lithotomy or even litholapaxy. On theoretical anatomical grounds, the operation leaves little to be desired.

There are few or no bloodvessels to be cut; the bladder can be distended to about the navel, and so all danger of opening the peritoneal cavity is avoided, the incision being made into the anterior portion of the bladder, in front of the peritoneal fold; the layers of the pelvic fascia are so arranged that infiltration of urine does not take place and cellulitis is avoided; the prostate and seminal ducts run no risk of being injured, and many other reasons can be brought forward in its favor.

During the last few months I have performed the operation three times, and though pleased with the ease of its performance, the results have been disappointing. In all three cases the patients were badly broken down, the calculi of large size, and the bladder of small capacity; so litholapaxy was out of the question, and perineal lithotomy was thought to have more dangers than the supra-pubic.

Case I.—Mustafa, a Moslem of Tripoli, 30 years of age, presented himself September 26, 1887, with all the symptoms of vesical calculus, of two years' duration. Examination revealed a rough calculus of moderate size. Cystitis was present; and as he was suffering severely, it was decided to operate the next day, the supra-pubic being selected. The patient having had a pur-

gative and a warm bath the day before, and quin. sulph., grs. x, with morph. sulph., gr. $\frac{1}{4}$, the following morning, he was put under chloroform, the abdomen sponged with carbolized water, the bladder distended with twelve ounces of warm water, a large steel sound introduced, and an incision three inches in length made just above the pubes in the median line. After carefully dividing the tissues towards the lower angle of the wound, that space situated between the bladder and symphysis and filled with cellular tissue was reached, where was felt the end of the sound pushing forward the bladder-wall. A tenaculum was then introduced into the wound and the bladder hooked up; after which its anterior wall was incised over the end of the sound, the left index finger entered, and the opening dilated. The stone (48 grms. in weight) was now grasped with forceps and extracted with little difficulty. After extraction, the bladder and wound were washed out with a carbolic solution, the upper angle of the bladder-wound united by several animal sutures to the corresponding point of the incision in the muscles, a drainage-tube put in its lower angle, and the upper portion brought together by interrupted sutures passing through the skin and muscles. Iodoform was dusted over, a piece of oil-silk put over this, and the whole covered with several layers of antiseptic gauze. These dressings were changed regularly, and the bladder washed out with warm antiseptic solutions twice a day as long as the man remained at the hospital.

Two days after the operation an attack of bronchitis made its appearance; but was kept under control, though not entirely cured. The temperature rose to 39.5°C. , and the pulse to 144 on the evening of the operation, and remained up for two days, when, under the influence of quinine, the morning temperature became normal, with an evening exacerbation of 1°C. ; while the pulse varied very little, being about 112 all the time. On Oct. 1 shreds of sloughing tissue began to project around the tube; so the wound was opened; superficial sloughs being found on either side of the incision in the linea alba. Some four days later

these separated, leaving healthy granulations beneath. Symptoms of localized peritonitis made their appearance in the hypogastric region three days after the operation, but did not become general. Following this was obstinate constipation and impaction of feces in the rectum, which had to be softened by enemata of oil and removed by a lithotomy scoop. Anorexia was marked from the first; and, as the stomach was very irritable, rectal alimentation and medication had to be resorted to. Besides stimulants and tonics by the rectum, frictions of brandy and oil were used to the cutaneous surface; while strychnia was used hypodermatically. Having gained in strength a little and being free from fever, he was taken away from the hospital on a stretcher by his friends, Oct. 15, eighteen days after the operation, with the wound unhealed. Several months later I heard that he ultimately recovered.

Case II.—Ibrahim, a native Christian of Soffita, having suffered with vesical calculus for three years, entered the hospital Dec. 12, 1887. After a few days' rest, he was operated on Dec. 17, having received the same preparatory treatment as Case I. Here only six ounces of warm water could be run into the bladder; so a colpeurynter was inserted into the rectum and distended, thus forcing the bladder up and to the front. The bladder was then opened as in the former case; but as the calculus was large, an attempt was made to crush it with a lithotrite. Not succeeding in this, however, the incision was extended towards the base of the bladder and a 95 grm. stone extracted. The dressings and subsequent treatment did not differ from those in the former case. On the second day bronchitis made its appearance, and cough was very distressing up to its termination. General peritonitis began on the evening of Dec. 19, and though of an asthenic type, terminated fatally on the 21st. From the first the pulse was weak and rapid, and the temperature, which was nearly normal every morning, rose to only 38.5°C. in the afternoon. The wound in the linea alba after death had an unhealthy appearance, and all of the peritoneal surfaces were much inflamed,

though no pus and no adhesions had formed.

Case III.—Abd-el-Latif, a Moslem of Tripoli, 40 years of age, with a history of stone for the last eight years, entered the hospital Feb. 21. After three days' rest and preparatory treatment, he was operated on the morning of the 24th. Here not more than two ounces of warm water could be injected into the bladder; so, after passing through the abdominal muscles, the scalpel was inserted directly above the symphysis, back on the calculus; and as soon as the bladder was opened, it was hooked up on the left index finger and drawn upwards and in front, against the parietes. Holding it in this position, the incision was extended towards the fundus of the bladder till the opening was large enough to permit of the extraction of the 122 grm. stone. After washing the bladder, the edges of its incision were seized by forceps, the finger removed, and either side of the opening in the bladder united by animal sutures to the corresponding points in the abdominal muscles. A drainage-tube was now put in, and the upper part of the incision closed, as in the two former cases. The subsequent treatment of the wound and of the bladder was as had been used before. That evening the temperature rose to 39.1° C., but fell on the third day to normal, and varied little afterwards. As in the other two cases, the pulse became weak and rapid, and bronchitis made its appearance. There were no signs of peritonitis at any time, but on March 5 cystitis made its appearance, and four days later was followed by dysentery, which terminated in death, March 15, twenty days after the operation was performed.

Having carefully studied up the subject and the reports of many cases, I feel confident that the operation will never become one of general practice in civilized countries where the case is seen in its early stages.

It is only adapted for those calculi on account of the size of which litholapaxy and perineal lithotomy are inapplicable. The operation is easy of performance, and with care there is little danger of opening the peritoneal cavity. Little reliance can be put on dis-

tending the bladder in cases of long standing.

The incision in both abdominal walls and bladder should be large enough to admit of the easy extraction of the calculus, and sutures applied at its upper angle if there are any suspicions of having injured the peritoneum. As bronchitis is apt to occur from the constant dribbling of urine over the abdomen, and for other reasons, I am inclined to think it would be best to carefully close the incisions in both bladder and abdominal walls, and perform a perineal cystotomy for drainage purposes.

A REMARKABLE CASE OF BRAIN INJURY.¹

BY JOHN D. BLAKE, M.D.,

Professor of Physiology and Genito-Urinary Surgery in the Baltimore Medical College.

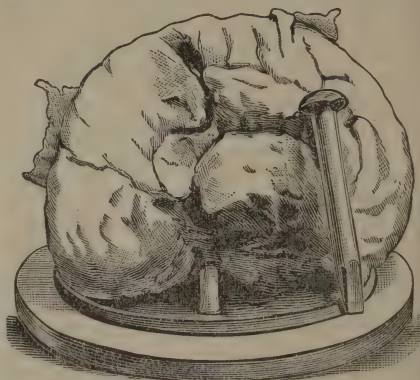
WAS called July 17, 1888, about 2 P. M., to Valentine F., a German, 67 years of age, who, according to the history given me by his family, had left his home about 6.30 A. M., on the morning of the 15th (two days previous to my being called), and was brought home about 4 P. M., same day, 15th (the day was exceedingly warm), by two young men, who stated that they found him sitting against one of the pillars supporting the B. & O. bridge at Mt. Clare junction, which is about one-half mile from the western city limits. They stated that he was sitting there crying, and begged them piteously to bring him home, giving them at the same time his address. With slight assistance he got into their wagon; but on their arrival home, some three-quarters of an hour later, they found him unable to get out, or walk after he was gotten out. The family, thinking that he was prostrated by the heat, assisted in his removal from the wagon to his bedroom, where he was placed comfortably in bed. Soon after he was put to bed, he raised himself on his elbows and asked for a drink of water. This being handed him, he drank without perceptible difficulty. The request for drink was often repeated during the night, and his swallowing seemed all right.

¹ Read before the Baltimore Medical Society, February 13, 1888.

Soon after his first drink, he asked for something to eat, which was also swallowed with seeming ease and relish. Next morning, however (Wednesday), the 16th, according to the statements of the family, he became very stiff—not able to rise on his elbows, as he had done the evening before; he talked as if his tongue was very thick; this stiffness became more general as the day passed, and in the afternoon he seemed very stupid and drowsy, and talked with great difficulty; could hardly be understood; voided his urine unconsciously.

July 17.—This morning seems very much worse; is completely paralyzed on right side. The family now becoming alarmed at his condition, sent for me, this being about noon; and in order to make him more presentable, attempted to remove his very much-soiled shirt, in order to replace it by a cleaner one. In drawing the shirt over the head of the patient, his wife and son discovered something black beneath the very full suit of gray hair which completely covered his head. Not being able to make out what it was on account of the slightly puffed condition of the scalp somewhat hiding the edges of the foreign substance, they awaited my arrival, which occurred at two o'clock P. M.; my attention being directed to it especially, I applied a pair of strong forceps and with some considerable force succeeded in extracting from the skull a railroad spike (which I now present for your inspection), three and one-eighth inches long and three-eighths of an inch in diameter. It was driven in until the head of the spike pressed the scalp firmly. Following its withdrawal was a small quantity of offensive, decomposed blood and serum, which I succeeded in getting rid of by arranging the position of the head and mopping with antiseptic absorbent cotton. The opening through the skull being sufficiently large, I extracted several large spiculæ of bone with my forceps. This being done, I set out to obtain a history of the case up to that time, which was what I have given you. I then noted his present condition, which was as follows: Hemiplegia complete on right side; sensation nearly abolished on same side; can't talk, but understands;

tongue runs to left side; can only be partially protruded; understands me when I speak loud, and says he has no pain, and the removal of the spike did not hurt him. (My questions were answered by nods of the head, at my suggestions.) Says he will take a little milk, in answer to a question. He swallows badly; uses his left hand and leg; answers all of my questions by nod of head, except as to how he got the nail in his head. He recognized the nail as being the spike, knew he was sick, knew his son and others; his mind seeming much clearer an hour after the removal of the spike. But he constantly refused to nod when asked such questions as the following: Did Mr. S., who went out with you on Tuesday, do this? Did you do it yourself? Did the men who brought you home do it?



Did you fall from the bridge? etc., etc., to none of which would he give the slightest nod. I then said, "Are you in pain?" He immediately nodded no. Tears at this time were running down his cheeks, but he did not give any other sign of emotion.

His respiration was slow, his pulse full 94, temp., 103 $\frac{3}{4}$; skin moist.

July 17, 8.30 P. M., more stupid; does not answer so promptly, but does so slowly; pulse 96; respiration more rapid now—22.

July 18, 9 A. M., is perfectly quiet; suffers no pain; has taken a little milk which he swallowed badly; temp., 104; pulse 98; is more stupid; 3 P. M., about the same.

9.30 P. M., still worse; slight muscular twitching of the left side; discharge more watery and more free; temp., 104;

pulse, 100; respiration somewhat jerking.

July 19, 9.30 A. M., in a profound stupor; takes nothing; pulse, 98; temp., 104.

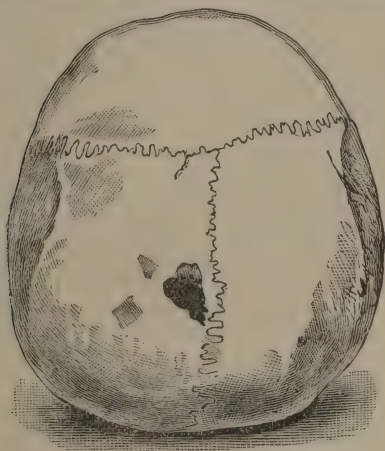
July 19, 3 P. M., almost comatose; has had a slight spasm.

9.30 P. M., has had two more convulsions which were very strong; seems to be sinking; respiration, 22; pulse, 98; temp., 103½.

July 20, 9.30 A. M., evidently sinking; respiration, 51; pulse small and very rapid; is in a slight tremor; has had another convulsion.

3 P. M., still sinking; has had another convulsion. 9.30 P. M., respiration, 55; pulse very rapid; profoundly comatose, and died at 2 A. M.

A *post-mortem* revealed the fact that the spike had entered the skull through



the left parietal bone near the median line and one and one-half inches from its junction with the frontal bone, passing obliquely downwards and forwards, entered the left hemisphere just anterior to Rolando's fissure and sufficiently close to the longitudinal fissure to open into it all the way down to the corpus callosum. The spike passing through those fibres went into the lateral ventricle, the point entering slightly the intra ventricular portion of the corpus striatum (the track of the spike can be clearly seen upon the specimen of the brain which I now hand you for your examination), the skull cap presents nothing unusual, except this large hole through which the spike passed

into the brain and which you see is large enough to allow the passage of my little finger; you will please examine it for yourselves. In regard to the spike, I would state that expert machinists and nail-makers to whom it has been submitted, declare that it is a perfectly new one and that its head clearly shows that it was driven in with a rock, brick or some rough substance, and that a hatchet or hammer was not used. As to how he got it in his head, this remains a complete mystery.

As to the points of special interest in this case a few of the many may be cited:

First, is the fact that we had a very perceptible restraining effect produced upon the heart, as we see that notwithstanding the fact that he had a very high temperature constantly, the pulse never was over a hundred until the last day. This I think was due to the inhibitory centre being influenced possibly by the injured condition of the cortex. The localized meningitis, I think, will account for the high temperatures.

2d. Why was there not from the very first a decided interference with motion? The young man who found him says that he got up from his seat and got in the wagon with only ordinary assistance. When he arrived home he was stiff, but could use his limbs tolerably well; he could talk, swallow, and chew his food; this of course is what his family and others say. Certainly, when I saw him two days after, he could hear well and swallowed comparatively well. Of course, as the temporal lobe was not injured, we would expect retention of hearing.

3d. There was relaxation of the sphincters from the first.

4th. From the injured condition of the corpus callosum we would have expected from the first slow cogitation, which we did not have other than could be accounted for possibly by shock.

5th. When we remember that voluntary motion has been traced and is supposed to be confined to that portion of the cortex known as the motor or central area of the brain (including the ascending frontal, ascending parietal and superior parietal lobes), why is it that, when we had certainly a large portion

of this area absolutely torn asunder and destroyed, the spike still resting in its substance, the man could walk with little or no assistance, could use his tongue, as in asking to be brought home, giving his address, etc., to the men who brought him; also asking for food and drink of his family, and swallowing the same?

ABORTION: SOME RARE CAUSES AND TREATMENT.

Read before the Rowan County Medical Society
BY C. M. POOLE, M.D.,
Craven, N. C.

IT may not be a well-recognized fact, but is none the less true, that abortion occurs much more frequently in some localities than in others. In the Southern States, where diseases are peculiar to their own locality, in order to institute a successful course of treatment, we first search for the cause of infection; and when this is removed, the epidemic, of whatever character, abates. Malaria has its strongholds; phthisis claims its victims in certain localities; typhoid fever is partial to some portions of the country; and thus we may follow the list of diseases all the way down. Then it should not seem perplexing when we find abortion occurring more frequently in certain localities than in others.

The first thing to be done is to look for the cause. In doing this, we would ask the question, *Does malaria cause abortion?*

But little has been said and written upon this subject. Consequently, the writer is forced to rely almost exclusively upon his own experience.

In the eastern part of this county abortions have reached an alarming degree. It is along the banks of the Yadkin river, and of creeks whose valleys are full of lakes and ponds: the very generators of malarial poison. Abortion is said to occur, as a rule, once in every one hundred and twenty pregnancies—being four-fifths of one per cent. It is impossible to say what the percentage would be if all the lying-in cases in this district were recorded; for a physician is more readily called to cases of abortion than to natural labor. But, by consulting my note-

book, I find that, in the last hundred cases of confinement attended by me, over sixteen per cent. were abortions or premature labors, to say nothing of the many cases of threatened abortion seen in time to arrest and bring to term. I do not wish to be understood as maintaining the idea that malaria was the sole cause of these abortions; but since malarial fever is so very prevalent in this district in its season, and as abortion is almost exclusively found within the limits of this infected locality, it is reasonable to suppose that it is one of the causes of this large percentage of abortions.

Behrmann says, intermittent fever, coming on during pregnancy, is difficult to cure; and when recovery has taken place, relapses are very common. Severe attacks may terminate the pregnancy prematurely. Parturition takes place on the day and at the hour at which the febrile paroxysm usually sets in. Dr. Geo. Seymore says, malaria during pregnancy may be either active or passive. If active, the characteristic chills, fever, sweating, malaise and prostration will exhibit themselves before parturition, and the probable result will be an abortion. Whether due to malaria *per se*, or to the quinine prescribed, is a question to be determined. While malaria, under certain circumstances, undoubtedly shortens the period of gestation, it would be folly to believe that every case of abortion occurring during an attack of malarial fever is caused directly by that malady. While it may be the predisposing cause, the exciting cause is frequently something else. Many cases of abortion are attributed to a malarial attack, when really the cause of abortion is the use of quinine or some other oxytocic remedy. There are many physicians who do not believe in the oxytocic properties of quinine; but in a number of cases its hazardous effect in this direction has been too clearly and forcibly demonstrated to disregard its effect upon the non-striated muscles of the uterus.

Some time since I was called to see a pregnant woman at 1 P.M., who had bilious remittent fever, and gave just enough quinine to break up the malarial attack. By the time the system was brought fully under the influence

of the drug, strong uterine contractions set in, and at 6 P.M. I was summoned hurriedly, only to arrive in time to witness a premature delivery. I am confident that quinine was the exciting cause of the abortion in this case. The patient had suffered for days with the same malarial attack, and had felt no symptoms of pain until the quinine was taken. Since seeing a number of similar cases, I have made it a rule to combine a little morphia with quinine when it is necessary to give it to pregnant women, which seems to control the oxytocic action of the quinine.

I have treated several cases of abortion that were caused by the woman picking cotton in her apron, which was tied around the waist and left to hang in the shape of a bag over the distended abdomen. The combined weight, friction and heat over the abdomen, together with the peculiar position of the woman, were perhaps the cause. There is one other cause in these cases which, although it may seem far-fetched, can come in as a supposition: the constant inhalation of the odor of cotton seed and of the cotton plant, especially after it has been nipped by frost. By thoroughly impregnating the system with these odors, the oxytocic effect may have been sufficient to produce abortion.

Santonin is rarely prescribed for adults; but it might be well to mention that it should not be prescribed for pregnant women, for it acts upon the non-striated muscles like ergot, and will cause abortion.

TREATMENT.

In the treatment of threatened abortion, we should first search for, and if possible, remove the cause. *Viburnum prunifolium* has proved itself to be the most reliable uterine sedative. Many cases have been saved by the free administration of this remedy, even when there was quite severe hemorrhage from the uterus. Where all efforts fail, and abortion is inevitable, the sooner the end is reached the better it is for the patient. Yet we must conform as nearly as possible to the physiological process of nature. If hemorrhage be profuse, and there is just cause for alarm, the uterus should be emptied immediately. We frequently see the

fœtus and membranes coming away intact; but in many cases the secundines are left in the uterus. In such cases, especially in early abortions, we may expect trouble if we attempt to remove them at once; although Dr. Cheatham, of Henderson, N. C., claims that he has invented a scoop that will empty any uterus of any portion of retained placenta or membranes with impunity, no matter how early the abortion.

Hence this matter resolves itself into the question, *When should the secundines be removed?* The earlier writers advised the expectant treatment of retained portions of the ovum. Churchill, Reichman, Meigs, Bedford, Tyler Smith, Ramsbotham and Hodge all advised the expectant plan. But when we consult late writers, we find quite a diversity of opinion. Barnes, Lusk, T. Johnson Alloway, Munde and Farr favor the immediate removal of the placenta and membranes. On the other hand, among modern writers who favor the expectant plan we find the names of such men as Playfair, Simpson, Schroeder, Angus McDonald, Walter Coles and others.

Dilatation of the closed cervix with tents and extraction of the secundines with the finger or forceps is the usual method of procedure of those who advocate the immediate removal of retained portions of the ovum. Thomas warns us of the danger of dilating the cervix with tents, but says the danger is not so great as to make one hesitate in using them if necessary.

Now let us notice the views of those writers—Barnes, Playfair, Simpson and Lusk—who deprecate the use of the curette or forceps as being hazardous. They employ the finger, and consider it safe and satisfactory. Alloway and Farr, on the other hand, regard the use of the finger as highly dangerous, and claim that the curette gives better results.

We thus have testimony from the gynæcologists themselves that the forcible extraction of the secundines, whether manual or instrumental, is not free from danger. The foregoing would show that active interference in abortion is, as a rule, unnecessary and dangerous; yet it will not be safe to pin our faith too closely to either of these

methods. Where there are alarming symptoms, remove the secundines at once, and do not be particular as to how this is done. If it can be done with the finger, use it; if not, resort to the forceps or curette. Where there is no cause for haste, the expectant plan has been very satisfactory. I have left cases ten, twelve and even twenty-four hours before removing the secundines, and have never seen a bad symptom resulting from such practice. The os is almost invariably found dilated, and in the majority of cases the placenta is presenting at the external os or lying in the vagina. After the secundines are removed, the very strictest Listerism should be observed. By Listerism I do not mean the indiscriminate use of carbolic acid or other antiseptics; but, in addition to the proper antiseptics, the most scrupulous cleanliness should be observed in every way. Bichloride of mercury, 1 to 2,000, is the best antiseptic for intra-uterine irrigation where such treatment is necessary. But it should be used with caution; for, though generally safe, it is not entirely free from danger.

Hofmeier reports a case of ruptured perineum, extending very high up, which was stitched up and the wound irrigated with a 1 to 1,000 sublimate solution. The patient died on the twelfth day, of mercurial poisoning. There was extensive gangrenous destruction of the entire mucous membrane of the large intestine, continuing also into the ileum. A similar case is reported by Stadtfeldt, in which a puerpera was given, on the fifth day, an intra-uterine irrigation of sublimate solution, 1 to 1,500. During the irrigation there was slight collapse, and five days later increased diarrhœa, vomiting and suppression of urine. The case terminated fatally. In the large intestine there were likewise numerous ulcerations, and, besides, parenchymatous nephritis.

These two cases, in which comparatively small quantities of a moderately concentrated solution of bichloride of mercury were employed, must certainly impress upon us the need of the greatest caution in its employment in puerperal women. Not only in using bichloride of mercury, but in making any

kind of injections into the uterus we should be very cautious.

The temperature of the water, strength and per cent. of the antiseptic used, condition of patient, kind of instrument, and how to introduce it—this is very important; for an unskilled hand may tear open the mouths of veins that lie ready to suck up any septic poison that may be in the uterine cavity and convey it directly to the heart and brain; and should such be the case, the patient is as effectually killed as Bruno killed Lord Byron. Thorough disinfection of the hands and instruments is of importance. The present state of bacteriology must convince even the most skeptical and conservative physician that soap and water exercise not the slightest influence over the microbial organisms, and that, to place our patients on safe grounds, we must resort to the true antiseptic agents. Anything that absorbs, neutralizes or destroys putrescent effluvia, miasmata or specific contagia, and thus remove the cause of infection, is a disinfectant. If physicians would observe the strictest cleanliness and antiseptic measures, and could enjoin the same upon their patients and nurses, we would hear less of septic troubles in puerperal patients.

THE THERAPEUTIC VALUE OF BEDFORD MINERAL WATER, IN CONNECTION WITH THE LOCAL DEMOGRAPHIC CONDITIONS OF THE MOUNTAINOUS REGIONS OF SOUTHERN PENNSYLVANIA, IN THE CURE OF DISEASE.

BY AMERICUS ENFIELD, M.D.,
Of Bedford Mineral Springs, Bedford, Pa.

The therapeutic value of mineral waters and of climatology are such important and inexhaustible subjects that it will be impossible to present them fully in one short article. I hope to be able to devote more attention to them in the near future. These two subjects have a close therapeutic relation, and have not received that unity of thought from the medical profession which their importance demands.

One of the best resorts on the Eastern slope of the Allegheny Mountains

is the famous mineral springs of Bedford. They are situated 200 miles west of Philadelphia, by the Pennsylvania Railroad, and 178 north-west from Baltimore. The Alleghenies are everywhere noted for their varied and picturesque scenery, and nowhere does it excel that of Bedford. Nature has bestowed many of her choicest gifts on this locality. The springs are surrounded by forests, vale, and mountain in sufficient variety to gratify the most fastidious taste. The atmosphere is pure, the soil is dry, and the sunshine is abundant. The weather during the summer months is usually cool and agreeable. Typhoid fever, dysentery, or diarrhoea rarely occur here. The climate is therefore well adapted for the cure of a great variety of chronic diseases.

The mean temperature for the summer months is about 65°. Visitors usually sleep with one or two blankets on the beds during a portion of the season, and frequently enjoy wood fires for the night and early morning. No local epidemics have ever occurred in this healthful region. Invalids usually stay from the first of June to the first of October.

The Bedford mineral waters have just been analyzed by Dr. Leffmann, of Philadelphia, and his analysis corresponds in general with that made by Dr. Church in 1825, and that of Prof. Genth, State Geologist, made in 1878. Dr. Leffmann has found, in addition to magnesia, soda, lime and iron, a number of other valuable ingredients, including lithium and barium. The temperature of the water is from 56° to 60° F. The specific gravity is 1.030. He has also analyzed the pure, or Sweet Springs, which his analysis shows to be one of the purest spring waters in this country; containing less than one and one-half grains of solids to the gallon. Dr. Church says it is the purest water he has ever seen. On account of its purity it has been appropriately called the "Sweet Water Spring." It contains a small quantity of free carbonic acid. Its temperature is 52° F., and it is one of the most palatable drinking waters to be found anywhere.

The Bedford Mineral, or Magnesia Spring, is a purgative-chalybeate wa-

ter, bearing considerable resemblance in its chemical and medical properties to the waters of Carlsbad. The iron is minutely combined with the other salts, so that its cathartic action is very much modified, and it can be taken for a long time without producing any injurious effects whatever. Its diuretic and diaphoretic actions are more marked than its cathartic or laxative properties. It contains just enough carbonic acid gas to make it palatable and pleasant, and its absorption into the blood is very rapid. The iron it contains, which is equal to about one grain to a glass, builds up the blood rapidly, while the other ingredients it contains reduce abdominal plethora and overcome constipation. I have been delighted with the favorable action of this water in diseases of the kidneys and bladder. It stimulates the kidneys so greatly that there is a certain and regular increased flow of urine each day the water is used. I am not prepared to go so far as some of my professional brethren, who have used it themselves, and prescribed it for others, in Bright's disease, and say that it will produce a cure of that malady. I do know, however, that it will lessen the flow of albumen when regularly and systematically prescribed. I have treated a number of cases of this disease (albuminuria) in the past few years with this water alone, and it has proved palliative in nearly every case. When this water is highly carbonized its action on the kidneys is very much increased. It washes out the kidneys and aids medicine in restoring them to their normal action. I have never heard of a case of Bright's disease in any person who has been in the habit of drinking this water regularly.

I can also confidently recommend the Bedford water as a valuable agent in chronic anæmia, dyspepsia, constipation, engorgement of the liver, and disease of the kidneys and bladder. It has also proved of service in cases of gout, syphilis, scrofula, neuralgia, hemorrhoids and certain skin diseases. I cannot recommend the water in diseases of the respiratory system, such as consumption, bronchitis and pharyngitis, although our Sulphur Spring, which is rich in sodium and sulphuretted hydrogen gas,

enjoys quite a reputation as a curative agent in asthma and other chronic bronchial troubles. I am inclined to think that our summer temperature is too low and our elevation above sea level is not sufficient to make this a favorable resort for persons suffering with diseases of the respiratory system.

This celebrated resort is now owned and operated by the Bedford Mineral Spring Co., a syndicate of Pittsburgh capitalists, who are making many improvements this year, which will be conducive to the health and comfort of the guests. They have invested considerable capital in this enterprise, and they intend to erect a large and handsome hotel during the coming year. This place has all the natural advantages to make it one of the finest sanitariums in this country. With increased railroad facilities, now in course of construction, the day is not far distant, when the Bedford Springs will be a resort not inferior to Saratoga. The hotel is conducted by J. D. McClellan, formerly of the Logan House, Altoona, and American House, Philadelphia, Pa.

The great variety and distinct character of the many Mineral Springs flowing from the same strata at Bedford have long been a cause of wonder and curiosity to the numerous visitors who annually come to this resort. Had these waters long since received the attention and investigation given to many other waters, Bedford Springs would enjoy a wider reputation than it does to-day. Besides the Bedford magnesia or Anderson spring, referred to in this article, there are located in close proximity to it a dozen or more fountains of distinct characters and properties, such as the chalybeate, sulphur, pure or sweet, limestone or calcic, pure flint, and soft slate waters, each differing in character, composition and action. What healing powers this great variety of water may possess can be determined positively only by a judicious employment of each water separately in well diagnosed diseases.

We have two valuable chalybeate springs here; and the use of the waters which flow from them has been found highly beneficial in cases of anæmia, chlorosis and indigestion accompanied with loss of appetite, or where there is

a deficiency of red blood corpuscles in the system.

Many invalids use the water from the mineral or magnesia spring, as it is called, and the chalybeate waters afterwards; or they first undergo a course of alterative treatment by use of the first mentioned water, and then finish up with the iron. Our chalybeate springs are limpid and fresh and have none of that inky flavor so common to many iron waters.

The iron is held in perfect solution by the carbonic acid gas contained in the water. After it is taken regularly for a few days it improves the appetite, gives tone and energy to the system, and produces general comfort and cheerfulness.

Sulphur Spring.—This spring rises on the west side of the branch, two hundred yards from the main or magnesia spring. It has a temperature of 56° F., and has a decided sulphuretted hydrogen odor. In addition to this gas, it contains lime, magnesia and chloride of sodium; but no iron. This water is applicable to the treatment of diseases of the skin, chronic sore throat, such as pharyngitis, laryngitis and bronchitis, also of metallic poisoning and syphilis.

Since the introduction of Bergeon's method of treating consumption, by using sulphur water to make sulphuretted hydrogen gas for introduction into the system, sulphur springs are receiving more attention from the medical profession than they formerly did. While there are a great many sulphur springs in this country, it is hard to find good sulphur water free from other deleterious substances, such as organic matter and salts of lime. When this water is taken in considerable quantity and for some time, it slows the circulation, soothes the mucous membrane of the stomach and lungs, and enriches the blood. Unfortunately for the invalids, the water soon undergoes chemical alteration after it is taken from the spring and consequently does not stand shipping well.

It is not my intention to mention in this article all the different waters which are found at Bedford, but in conclusion I will briefly refer to

our pure or sweet spring water. This water is exceedingly valuable as a general drinking or table water, in these days when the water supply of many cities is polluted by germs which produce so many of the diseases of modern life. The time has come in the cities when the people should try to get pure water as well as pure food and pure air.

The late analysis of this spring by Dr. Leffmann shows it to be one of the purest waters ever discovered in this country. It has less than $1\frac{1}{2}$ grains of solid constituents to the gallon, and it is as bright and limpid as a sunbeam. All that is necessary to render it as pure as the purest distilled water is to expel the small quantity of carbonic acid gas it contains.

This water bursts from the fissure of a rock within a few feet of the hotel, and is freely used by the guests for general drinking purposes and for a table water. Its taste is delightful, especially to those who have been compelled to drink bad or impure water all their lives. The constant use of impure water in large cities may be one of the chief causes of the increase of kidney disease among the inhabitants.

TRANSLATIONS.

A NEW TREATMENT FOR ACUTE PEMPHIGUS.—In 1882, I had the honor to report to the Waldensian Society a case of true acute pemphigus in a little girl of six years. To-day I have the good fortune to present a case of chronic pruriginous pemphigus. Madame R. P. was admitted to the hospital Jan. 16, 1888. Early in December, she noticed upon her face an eruption of white vesicles as large as a pea, which, when opened, discharged a clear fluid. This was attended with severe itching, which did not cease when the vesicles disappeared. A scab then formed, which bled when scratched. Soon this eruption became general. Some blisters, from the size of a pea to a hen's egg, appeared all over her body, at first under the arm-pits, then upon the arms and legs, then upon the trunk. The patient, who at first suffered only from thirst, now took to bed, the weakness being extreme and the pains in her

limbs being so severe that she was unable to sit up. She had had no premonitory symptoms, other than the intense thirst alluded to above. The previous history revealed a typhoid fever in 1881, followed by profound anemia, also a pregnancy of four months. Upon her admission to the hospital her appearance was characteristic of pemphigus. Her entire body was sprinkled with blisters, some not yet surrounded with a red areola, and containing a yellowish liquid; others as large as a walnut or even an egg, surrounded by an erythematous zone, not infiltrated, and filled with a cloudy liquid. In some even the serum presented two distinct layers, the lower full of white globules, the upper still clear. Besides these perfect blisters, there are many within which the broken edges expose a portion of the chorion denuded by scratching. Others are covered with a yellow scab. In some the scab had fallen off, exposing a discolored skin, showing the shape and size of the original blister. The diseased surface of the skin covers at least half of the body, leaving the rest healthy. The patient, tormented by the serious itching, is only at ease while in the bath. The general health is moderately good; there is some loss of sleep and strength, but the appetite is good and the temperature only 38.5° . The treatment adopted during the first week, consisting of prolonged baths of boracic acid, from four to five hours a day, did not give the expected relief. In the interval between the baths the entire body was powdered with boracic acid. Arsenic internally, chloral and bromide of potassium for the sleeplessness and a strengthening diet were added.

During four weeks this treatment was continued without apparent effect. The itching did not decrease, and every two or three days a fresh eruption of blisters, large and small, covered the body. Each hour a higher temperature (38.8°), announced the eve of a new eruption. Her general health now became impaired, the appetite diminished, weakness increased, and the itching became more unbearable.

February 12, it occurred to us to try compresses of carbolized water, in the hope of lessening the itching. The effect

was magical. As soon as the compresses were applied the itching ceased, and the patient announced the relief with cries of joy. In about three days we noticed that the new blisters were more scattered. Feb. 20, the carbolic acid seemed to prevent the development of the blisters; they were fewer in number and the skin was more healthy. Feb. 25, some small blisters remain, principally on the face where the acid was less freely applied.

These observations are interesting for the following reasons: the diagnosis was at first obscure, whether it was an acute or chronic pemphigus. It was hoped that a speedy cure would follow, as in our patient of 1882; but the successive eruptions undeceived us.

The etiology offered on the contrary nothing extraordinary, but confirmed our former observations in such cases. We have to deal with a woman left delicate by typhoid fever, and withal in the beginning of pregnancy, which in itself constitutes a predisposing cause. The treatment appears worthy of remark. During a month of routine practice the woman grows steadily worse. Arsenic and baths failed to relieve. By the use of compresses of carbolic acid, not only was the intense itching relieved, but the disease itself was arrested. The success of the carbolic acid confirms the microbic theory of M. Gibier, and gives a new strength to that theory of the pathology of pemphigus. In closing, we will state that this treatment was well borne. At first the abraded surface was large, owing to scratching, and the urine became black in twelve hours, so that every three days we suspended treatment for twenty-four hours, when it became normal. Care should be taken to remit the treatment when the color of the urine indicates intolerance of the acid. This treatment is as yet unknown, which is our excuse for presenting this case. — SECRETAN in *Revue Medicale de la Suisse Romande*.

A NEW SICK-DIET.—*Adrian*, in the *Jour. de Chim. et de Pharm.*, proposes the following as a substitute for meat powders: One kilo of beef is roasted; the gravy is caught upon pieces of toasted bread; both beef and bread are

then dried and powdered, and the following mixture made:

Powdered meat.....	200	grms.
“ toast	200	“
“ beans	200	“
Milk sugar.....	150	“
Dextrine.....	50	“
Malt.....	50	“
Tapioca.....	150	“

The dextrine favors the secretion of gastric juice, and the malt completes the action of the pancreatic secretion and the saliva.

The product represents about four times its weight of fresh food. The product is granulated, a result to which the tapioca contributes. The soup made from this can be flavored with Liebig's extract.

UTERINE DISPLACEMENTS.—*Dolérís* (*Gazette de Gynéc.*), says that since 1885 he has adopted in the treatment of uterine displacements the combination of plastic operations: colporrhaphy, perineorrhaphy and trachelorrhaphy with shortening of the round ligaments; for experience has shown that isolated operations are quickly followed by a return of the displacement. In thirty cases thus treated he has had twenty-seven cures and three partial failures.

EUROPEAN METHODS OF EDUCATION.—“In Germany we find customs very analogous to our own. The young men of the middle class all follow the course of the Gymnasia. They study there the ancient languages, history, geography, the sciences and the modern tongues. To fulfil the demands of the curriculum, they give to intellectual work a period which many intelligent persons consider too long. But the German regime has, in my opinion, one advantage over our own: the physical exercises in the Gymnasia are practised largely and held in much more esteem than in our colleges.

“In England it is understood better than elsewhere that the character, energy and constancy of the will, based upon an equilibrium of the faculties, gives to a man his true social influence. Thus, while we are occupied almost exclusively with the intellectual development and the acquisition of knowledge, in England one thinks more of the future than of the present, of the quali-

ties which will bring success to the man rather than the success of the scholar.

"Exercise incessantly the initiation of the child; give him a lively sentiment of his responsibility and of his personal dignity; inspire him with a taste for realities; make him love physical energy, as much for itself as because, without it, intelligence and will remain sterile. Such are the principal considerations of the English pedagogue."

First among the causes of the inferiority of French education, the writer puts the assemblage of too many students in one school. When four to six hundred are collected together, the question of discipline must outweigh that of the study of individual capacities.

Secondly, the unwise solicitude of parents that their children shall stand at the head of their classes; neglecting the equable development of their characters and their bodily health in the acquisition of facts.

He recommends the making of gymnastic exercises obligatory, and the increase by three hours per day, in one period, of the time for recreation.—*Jour. de Hygiène.*

MEDICAL TREATMENT OF PHTHISIS.—From a new edition (now in press) of a treatise on pulmonary phthisis, by M. M. Hérard, Cornil and Hanot, we extract the following:

Sulphur; tonic and general stimulant, possessing besides a local action, substitutive and necrophytic, showing itself especially in inhalations of sulphurous and of sulphydric acids, and in the soothing and undeniably modifying action of thermal sulphur springs.

Arsenic; reconstituent as to the appetite and the physical forces, restorer of embonpoint, calmative of cough and fever, opponent of denutrition, in hindering the oxidation of the tissues. In addition, it lessens the pulmonary congestion and perhaps destroys the bacilli of Koch.

Iodine; antiscrofulous, antiseptic and antivirulent; can be advantageously administered free, in pill form, with extract of peach leaves, $\frac{1}{10}$ gr. in each pill, taken after meals. The iodides are better tolerated and useful in the granulation stage. Iodoform moderates

the fever and lessens expectoration; it seems in a way to sterilize the organism, and renders the bacilli inoffensive.

Chlorine may be tried by inhalation; perhaps it will give as happy results as *fluorine*, now the fashion.

Chloride of sodium is the agent of the entrophic medication which Latour endeavored to make specific. His formula was:

R Marine salt.....3ijss
Tannic acid.....3ijss
Conserve of roses.....q. s.

To be divided in 100 pills. One every hour for a month.

Phosphorus; often dangerous, should especially be recommended in the case of abundant phosphaturia which marks the début of phthisis. Besides, we use the tribasic, or better, the bibasic calcic phosphate, cow's milk phosphate, etc.

Creasote; combats the bacillar element of phthisis. It can be administered with a peptone hypodermically, by the following formula:

R Dry peptone.....3 ijss
Beechwood creasote..... gr. xlv
Neutral glycerine.....gr. dcc
Alcohol.....3 ijss
Distilled water.....3 v
Morphine muriate.....gr. jss

M. S.—Four or five Pravaz-syringefuls deeply injected daily.

Phenic Acid; by inhalation, or, better, by hypodermic injection, is equally an efficacious antiparasitic; as also are *eucalyptol*, *turpentine*, *goudron*, and other balsams.

Tannin is also a very useful antivirulent and entrophic. Besides these, other remedies are indicated by the various symptoms.

—*Revue de Thèr.*

TREATMENT OF GONORRHOEA.—*Mauriac*, in the *Revue Gén. de Clinique*, reaches the following conclusions:

1. The abortive treatment is indicated, and has a chance for success in acute gonorrhœa, only during the first hours of its début.

2. All attempts at cutting short a gonorrhœa during the crescent and stationary period are useless or dangerous, or give only apparent cures.

3. The antiseptic practice suggested by the microbial theory, has given only illusory results.

4. It is indispensable that acute gonorrhoea shall be submitted to antiphlogistic treatment until the almost complete disappearance of the most inflammatory symptoms.

5. Repressive medicine gives decisive and durable results only in the involutive stage.

6. The agents for repressive medication are copaiba and cubebs internally, and sulphate of zinc by injection.

7. The duration of repressive measures must be short. If good results are not quickly obtained, he returns to the antiphlogistics, also in case of imperfect cures.

RETROVERSION.—BERRUT says that fullness of the bladder, the approach or the existence of menstruation, can simulate or exaggerate the retroversion. Treatment should not be instituted unless the diagnosis has been confirmed by many examinations. Reduction is of capital importance; it is often done incompletely, because in the usual position of the speculum, the reduction which can be made is unstable, and the displacement is reproduced before the pessary can be introduced.

The genu-pectoral position is necessary to obtain a durable reduction.

The best instrument for retention is a sigmoid ring of suitable dimensions.

M. Berrut believes that retention should be tried before having recourse to an operation, such as shortening the round ligaments.

He looks upon the unstable condition of the uterus as a proof that woman was intended for the attitude of a quadruped. Sexual intercourse was first practised *more canino*, and 'barred' women are still obliged to have recourse to this procedure. It is the projection, which has probably been progressive, of the vulvar cleft towards the front, which gives to man the precious privilege of intercourse face to face.—*Gazette de Gynèc.*

HEART TONICS.—MULHALL, in the *St. Louis Courier of Medicine*, gives the results of his trials of these agents. Convallaria and adonis vernalis quickly became too repugnant to be taken. The benefit only endured while they were being taken. Caffein, in doses of 15 to 25 grains, answered better, but not

as well as digitalis. Sparteine was tried in but one case, and proved unsatisfactory. Strophanthus answered fairly to the claims made for it by Fraser, excepting as to its diuretic action. Neither it nor any other heart tonic could compare with digitalis.

THE PHILADELPHIA CLINICS.

UNIVERSITY HOSPITAL.

COXALGIA.—(Agnew.)—When a child walks slightly lame, is fretful, and stands on one foot mainly, with the other leg bent, and the foot everted, look carefully for hip disease.

In addition to the other ways of examining, put your thumb on the anterior-superior spine of the ilium, and rotate the leg. In a sound limb, your thumb will not move; but if the joint is diseased, the pelvis will be felt to move with the leg.

STONE IN THE BLADDER OF A WOMAN.—In addition to the reasons ordinarily given that women are not often affected with stone in the bladder, Goodell says that another is because their life of comparative confinement makes them much less likely to contract kidney troubles and the like causes that give rise to the formation of calculi. He also remarked that when calculi were found in the bladders of women, the stone usually had a nucleus composed of some foreign body, which had been introduced into the urethra through reasons of pruriency or of curiosity. As a woman's most constant companion is a hairpin, the nucleus is likely to be that. In this case the stone was entirely too large to be removed through the urethra; so, having introduced a sound into the bladder, he snipped with a pair of scissors the vaginal wall covering the end of the sound, and then enlarged the incision enough to withdraw the stone. The calculus was found to be quite a large one, of rather smooth outline, two inches in its long diameter, by one and one-half inch in its short.

The operation was completed by closing the wound with eight silver wire sutures.

PENNSYLVANIA HOSPITAL.

ASYMMETRY. (Morton.)—Every case of spinal trouble brought before the physician should be stripped from head

to foot to see if there is not a difference in the length of the legs. This asymmetry is the cause of much annoyance and of many curvatures of the spine. Notice whether the gluteo-femoral creases are on the same horizontal line, and whether the spinal column is at right angles with this line. If not, put blocks or books under the short leg till the lines are correct. Then order that much additional heel to the shoe on the short side. Many cases of beginning curvature can be cured and many curvatures avoided by these simple means.

RESECTION OF KNEE-JOINT.—On the same occasion Morton resected the left knee-joint of a boy of ten, for an old inflammation, followed by ankylosis at a right angle. This inflammation was the result of the actions of an inhuman father, who cut off two of the child's toes, in order to gain money through sympathy for the boy's condition.

The operation was performed antiseptically, the bones were fastened together by three sutures of chromicized catgut, and healing took place in a few days by first intention.

WOMEN'S COLLEGE.

LIPOMA. (*Keen.*)—He removed from the shoulder of a young woman a growth of this character, the size of a small orange, the result of having a window-sash fall on the shoulder some months before. In the course of the operation he remarked that never before was he so deceived with regard to a tumor as he had been a few days since. There was in the cheek of a young woman a hard growth, which he felt almost sure must be a fibroma or a spindle-celled sarcoma. But upon removing the tumor it proved to be simply a sebaceous cyst, from which all the softer constituents had been removed, leaving a remainder as hard as the kernel of a chestnut.

POISONING FROM APPLICATION OF PHENOL SODIQUE.—In one of our hospitals some days ago a man had a finger amputated at the second joint. The finger was dressed with gauze saturated in phénol sodique, and the man was told to keep the dressings wet with that preparation. This was on Satur-

day. On Monday morning a doctor was called and found all the symptoms of carbolic acid poisoning; delirium, black urine, quick pulse, etc. The symptoms subsided almost at once upon stopping the phénol. Wood mentions a case in which the whole finger became gangrenous from a similar application.

WILLS' HOSPITAL.

EXOPHTHALMIC GOITRE.—A few weeks ago there was admitted to the Wills' Eye Hospital a young woman afflicted with what Dr. Strawbridge says is the worst case of exophthalmic goitre he has ever seen. She exhibited all the signs of that distressing trouble to a most marked degree. When admitted to the hospital she was blind from ulceration of the corneas. This had been caused by exposure; because the eyes bulged out so far that the lids refused to close over them. At this writing her condition is much improved; her lids can be closed and the cloudiness is slowly going away. The treatment has been digitalis and Lugol's solution.

POLYCLINIC.

BILIARY CALCULUS.—*A propos* of a case of biliary calculus, Henry said that although Murchison stated that the pain of a calculus of this character may radiate upward towards either shoulder and backward, it never radiates downward; he himself had a case lately in which pain was felt over all the abdomen. The diagnosis was proved by finding a large calculus in the fæces.

ORTHOPÆDIC HOSPITAL.

PARALYSIS AGITANS.—This is likely to be confounded with only two affections: *Multiple sclerosis* and *senile tremor*. In the first of these the tremor begins only upon using the hand; whereas in paralysis agitans the tremor can be stopped by using the hand in some way—clenching it, for instance.

In paralysis agitans we have the Charcot hand; fingers bent at a right angle to the hand, and turned towards the ulnar side. Besides this, the thumb is rolled across the first two fingers, as if rolling a little ball between them. In senile tremor the movements are coarser than in paralysis agitans, and cannot be controlled by voluntary movement; nor is there the Charcot hand.

Two remedies are sometimes of use: hyoscyamus, and arsenic. In this instance Sinkler gave gtt. v. Fowler's solution *ter die*.

MEDICO-CHIRURGICAL HOSPITAL.

OBSCURE PAINS.—To a little girl of nine years, complaining of obscure pains in her bones and general *malaise*, Atkinson gave:

R Acidi salicylici.....3 ij
 Tincturæ ferri chloridi.....3 ij
 Acidi acetici.....gtt. x
 Aque.....3 iv

M. Sig.—Teaspoonful four times a day.

WEAK THROAT.—He advised a woman who had a weak throat, that is, the mucous membrane was relaxed and caused sensations of a sore throat without its actually being sore, to pursue this treatment: On one sumac top, as fresh as possible, she was to pour a pint of boiling water; and into this put a teaspoonful of common salt. Keeping the water warm, she was to gargle her throat thoroughly every three hours. Atkinson has seen this treatment have a remarkably beneficial effect.

CATHETERS.—Speaking of catheters, Waugh said that the proper kind of catheter to give a patient is a flexible rubber instrument. No matter how awkward he may be, he cannot hurt himself with an instrument of this kind; and, besides, it is easier for an unskilled hand to introduce than a catheter of any other sort. The great objection to a rubber catheter is that the instrument so soon wears out; but if pure olive oil be used on them, they will last longer than is generally the custom. For the physician he prefers the silver catheter, as this can be polished infinitely smoother than an instrument of any soft or flexible material whatever.

CONSUMPTION.—“Gentlemen,” said Waugh, “in this form of consumption, the pneumonic, cod liver oil is worth more than all the other remedies together. Support your patient, and you may pull him through.”

HYPODERMATIC INJECTIONS OF COD-LIVER OIL.—Shoemaker is fond of giving medicines hypodermically; for in many cases of chronic skin disease, the stomach is in such a condition that medicine by the mouth does little or no

good. He occasionally gives cod-liver oil in this way; and in one case he used a horse syringe, injecting into the subcutaneous cellular tissue as much as two tablespoonfuls at a time. But in the course of many thousand injections of various substances under the skin and into the muscle, he has never had an abscess to follow. The explanation, he says, is simply cleanliness.

EPITHELIOMA.—Shoemaker has often had success in checking the growth of superficial epitheliomas by this method: Remove the scab from the little growth, and apply two or three times a day the ointment of the subiodide of bismuth till the parts are healed.

PARÆSTHESIA.—There is an old man suffering from general paræsthesia, who has been treated for some time at Shoemaker's clinic, by hypodermic injections of arsenite of sodium, till he has grown quite fond of the hypodermic syringe.

FLOODING.—(Montgomery). A woman of twenty-eight complains of flooding for three weeks. Examination shows that the uterus is about as large as that of a three months' pregnancy; but it does not feel like a pregnant uterus, nor do the other conditions favor this view. The probabilities are that we have here a soft growth in the cavity of the uterus. Although she says that she has not had a chance to become pregnant since last November, we will not take the risk of inserting a sound into the uterus till we have had the woman under farther observation. Meanwhile she will be given this prescription for the flooding:

R Ext. cannabis indicæ.....gr. viij
 Ext. ergotæ fluidi.....3 j
 Ext. hamamelis fluidi.....3 ss
 Tinct. cinnamomi.....3 ss

M. Sig.—Teaspoonful three times a day.

Ergot would not be contra-indicated even if we knew her to be pregnant. Injections of hot water will also be given. As soon as we are quite sure that there is no pregnancy the os will be dilated with a tent wide enough to introduce a finger; and then a positive diagnosis can be made.

Dr. J. Milner Fothergill is dead.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, JULY 2, 1888.

FEMALE PHYSICIANS.

ON Wednesday, June 20, 1888, a female physician was elected a member of the Philadelphia County Medical Society. The honor of being the first of her sex to pass this barrier was won by Dr. Mary Willits, a lady in every way worthy of the distinction.

We have always been of the opinion that this Society, as it claims to be representative of the regular profession in this city, has no right to exclude any regular physician from membership without specific cause.

Upon this ground we have voted uniformly in favor of the admission of the female candidates, as they are graduates of a regular and reputable college.

The question of the advisability of women entering the ranks of medicine is altogether different; and is complicated by personal considerations and special conditions. In Eastern countries, where women are secluded, female physicians should find a favorable field, where they can accomplish much good. Here, we see around us the evidence of a certain degree of success. It cannot be denied that some women have obtained lucrative practices, even among those who have not fallen away into homœopathy. Their contributions to medical literature, though scanty, have been fairly creditable; quite up to the average of the other sex, sometimes much above it. Whether anything of genuine value has been added to the sum of medical knowledge by women, or whether the practical work is any better done than if it had been left to male physicians, we leave each of our readers to judge for himself.

But whether the women whose mental endowments are such as to fit them for a physician's duties, are likely to have the necessary physique, is a question upon which we have much more doubt than we had ten years ago. There are certain responsibilities which the physician, man or woman, must assume. In no walk of life is a shirk more out of place. Office practice, specialty work, and attendance on the wealthy make no serious calls upon one's strength; and, as long as the lady's work is limited to these easy tasks, she may do very well.

In one case within our knowledge, a young girl started out in her professional life precisely as a young man must do. She had no means, her wealthy relatives were homœopathic, and she began with the poor, the alley folks. She took a poor district; turned out of her bed at night in all sorts of weather to visit the wretched denizens of the "seventeen-family house" and similar places; was swindled unmercifully by those she served; and, in a word, did just what any young male physician in similar circumstances must do to get a start. We noticed her when she graduated, as a bright, pretty girl, with so much intelligence that one could not help sympathizing with her desire to make of herself something more than ordinary. It was five years later when we again saw her. The struggle for existence had told heavily upon her. She had aged greatly; her fresh, youthful beauty was gone; the hard lines on her face told of the severity of the struggle; she was disheartened, weary, and in less time than six months she was dead. We know not what name was inserted in the death-certificate; but that girl died of exhaustion—worn out in the hopeless endeavor to show that woman can fill man's place in the world.

Still, when the ladies persist in making the experiment, whatever may be our opinion as to the final result, we believe it is better to give them our aid and to throw no straw in their way. Then, if failure result, it will be due to the inherent fallacy of the project, and not to the lack of a fair chance to test it.

ENDORSING FOREIGN DIPLOMAS.

THE following letter, taken from the *British Medical Journal*, of April 21, 1888, may be of interest:

PRACTICING IN AMERICA.

M.D., M.R.C.S.E. (Philadelphia, Penn.), writes: In reply to "Stars and Stripes," and at the same time correcting a grave mistake of "Yankee's" in his reply to "Stars and Stripes," I would say that an English graduate will have no difficulty whatever in securing the proper registration in any of the States of the Union. The examination required is simply formal, as the examiners themselves will tell you. "Yankee," unlike the original Yankee, remarks that it would be hard for an Englishman to pass. This is an intentional error (I feel like saying lie), since anyone who knows the relative standing of the profession in both countries will bear me out in my assertion. It would be no advantage for an English graduate or licentiate to possess an American M.D. It would be to him less than "thank'ee for nothing." And should he desire one (M.D.) he would have little trouble in securing it. "I speak whereof I know," since I am graduate of England and America.

Just why any American medical college should voluntarily assume such a position as is indicated in the above (provided it is true), is difficult to conjecture.

A century ago, when our medical schools were few and imperfect, and the rapid growth of our population, together with its wide dispersion, rendered it difficult to secure educated physicians to do the work, the graduates

of reputable European schools were properly received with a hearty welcome, and assigned a high place.

But surely such is not the case at present. There is no dearth of physicians in any part of our country; and, while really superior men from other lands should still meet the welcome they deserve, the time has gone when the foreign physician should be conceded to be perfect as a matter of course.

Judging by the examinations we have held, the graduates of foreign schools do not show any such superiority as would be indicated by the letter quoted. They are as a rule deficient in therapeutics, giving the impression that their efforts contemplate little besides a diagnosis, to be confirmed by an autopsy.

It does not necessarily follow that a physician educated in Europe, however thoroughly, is prepared to practice his profession here without some special instruction on the diseases peculiar to this country. That this has been obtained, it is the duty of the Examiners to ascertain, by a trial which shall be so thorough as to inspire a little more respect than is exhibited by the man who wrote the letter quoted.

THE Medical Faculty of the University of Pennsylvania desires to extend their heartiest thanks to the Resident Physicians of the University and the Philadelphia Hospitals, to students and others, who so energetically aided in saving preparations, books and apparatus at the recent fire in Medical Hall.

* * * * *

The most deplorable thing about such a fire is that much of the loss is in articles upon which a money value can hardly be put, as they cannot be replaced. We sincerely hope that the University will receive the earnest and

united aid of the medical profession in restoring these collections, as far as may be, and in providing for them a fire-proof building which will prevent such lamentable losses in future.

CELEBRATED CASES.

It has been noted as a curious coincidence that in cases which attract public and wide-spread interest, the patient almost invariably dies. This occurred in the Garfield, Grant, Emperor Frederick and the Conkling cases. Generally this is due to the fatal character of the malady—the spectacle of a great man battling with an incurable disease being very apt to attract public sympathy. That royalty should suffer with rheumatism only serves to remind one that humanity is alike in all stations; but a kingly struggle with cancer is different.

LONDON LETTER.

AMERICAN PRACTITIONERS IN ENGLAND.

THE Medical Acts Amendment Act (1886) is not on all points very clear; but there is no doubt that the position of persons holding foreign degrees in medicine and desirous of practising in the United Kingdom is materially improved under it, inasmuch as they can henceforth gain a legal status. Any foreigner who desires to be registered in this country must prove to the Registrar of the General Medical Council that he holds a "recognized foreign medical diploma granted in such a foreign country, and that he is of good character, and entitled to practise medicine, surgery and midwifery in such foreign country. He must further prove that he is not a British subject. A recognized diploma is "such medical diploma or diplomas as may be recognized for the time being by the General [Medical] Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery and midwifery." The application of these provisions of the Act to any foreign country is contingent upon the Privy Council being sat-

isfied that the foreign country affords to the registered medical practitioners of the United Kingdom such privileges of practising in the said foreign country as to the Council may seem just. The first step, it appears, must be taken by the United States. It will be necessary for any person or persons desiring to practise in England to show that English practitioners enjoy like privileges in America. This presumably will involve an official diplomatic action on the part of the United States government. An Order in Council would then be issued, authorizing the General Medical Council to register the holders of the medical degrees of the universities of the United States. It would then have to be proved to the General Medical Council that the degree of any particular university guaranteed the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery and midwifery. Each individual candidate would have to give formal proof of the possession of such a degree; and, finally, would be required to pay a fee of five pounds.

The General Medical Council has not yet been invited to state what course of education and examination it would consider a sufficient guarantee of the possession of the requisite knowledge; but justice would demand that it should be the minimum exacted from students in this country: namely, a curriculum of four winter and three summer sessions, subsequent to a thorough entrance examination in English, Latin, mathematics (elementary arithmetic, algebra and geometry), elementary mechanics (statics, dynamics and hydrostatics), and a modern language, or logic, or botany, or zoology, or elementary chemistry. The professional examinations are required to include: (1) chemistry, including the rudiments of heat, light and electricity; (2) anatomy; (3) physiology; (4) materia medica and pharmacy; (5) pathology; (6) medicine; (7) surgery; (8) midwifery and the diseases of women and children; (9) vaccination; (10) forensic medicine; (11) hygiene; (12) mental disease. Owing to the culpable carelessness (to use no stronger phrase) with which the Legislatures of many of the States have granted char-

ters to bogus colleges, it is probable that the credentials of American candidates for registration on the *British Register* would be scrutinized with more than ordinary care. This is hardly to be wondered at; the innocent suffer for the guilty all the world over.

If any M.D. who has cast his eyes this way is not yet discouraged, I may add that we had over 27,000 names on the *Register* last year; and that we shall probably have nearly 30,000 before the end of this. Further, I may state for his information that our death rate and sickness rate is decreasing; that our working classes—who live longer and healthier lives than the working classes in the United States (being much better off, owing to the high purchasing power of money)—never, or rarely, pay the doctor except through clubs; that a paternal government takes about four per cent. of our gross earnings for not looking after us; that the parochial authorities take about as much more; and that the “Irish question” has not yet disappeared.

THE RELATION OF THE SYMPATHETIC TO THE CEREBRO-SPINAL SYSTEM.

Dr. W. H. Gaskell, F.R.S., instructor in advanced physiology in Cambridge University, who is the recipient this year of the Marshall Hall prize awarded quinquennially by the Royal Medical and Chirurgical Society for eminent contributions to knowledge of the nervous system, gave an address to the Society on May 24. The meeting was largely attended, and the Fellows were rewarded by hearing a most lucid account of Dr. Gaskell's elaborate researches into the structure and function of the sympathetic system. His discovery, for it is nothing less, is that the sympathetic nerves are in reality directly derived from the cerebro-spinal system; and that, therefore, the old doctrine of a dual nervous system, cerebro-spinal and sympathetic, is erroneous.

THE VISCERAL CENTRES OF THE CORD.

The posterior vesicular column of Lockhart Clarke, commonly called by continental anatomists Clarke's column, consists of a group of large rounded cells occupying the base or neck of the

posterior horn, on its median (inner) aspect. Dr. Gaskell has been able to trace the visceral nerves by their peculiar structure as extremely fine grey bundles, from Clarke's columns to the sympathetic ganglia. These nerves leave the spinal cord by both the anterior and posterior nerve roots, and are then white medullated nerves; but after entering the sympathetic ganglia they lose their medullated sheath, and become the non-medullated “sympathetic” fibres. Owing to a breaking up of the fibres in the ganglia, the number of separate fibres is increased; but Dr. Gaskell maintains that no new fibres originate in the ganglia. The dropping of the medullary investment was beautifully demonstrated by large photographs thrown on a screen, and explained by the lecturer during his address.

VISCERAL SPINAL NERVES.

It is well known that Clarke's columns are not equally developed in all regions of the cord. They may be traced from near the lower limit of the cord to the upper part of the cervical enlargement; but they are best marked in the middle dorsal region. Speaking generally, they are best developed in those parts of the cord where Dr. Gaskell has found that great outflows of visceral nerves occur. These outflows occur in three great streams (to use his somewhat symbolic nomenclature): cervico-cranial, thoracic, and sacral. The thoracic outflow extends from the second thoracic to the second lumbar nerves; and the vaso-motor nerves for all parts of the body were traced to the anterior roots in the region embraced by these two extremes. In these roots they are very fine medullated fibres; but on reaching the ganglia of the main (lateral) sympathetic chain, they lose the medullary investment. In the same way the cervical outflow consists of similar fine medullated fibres, springing from the upper part of the cervical region and directed to the ganglion of the trunk of the vagus, in which they lose their sheaths. This “outflow” is found to contain the nerves by which the peristaltic movements of the œsophagus, stomach and intestines are governed.

THE PLAN OF THE NERVOUS SYSTEM.

While thus demonstrating for the first time the essential unity of the whole nervous system, Dr. Gaskell is at the same time able, by a valuable generalization, to trace the outlines of the plan upon which the nervous system is constructed. The whole body is divisible into two parts: the outside or somatic part, and the inside or splanchnic part. Each part has its own proper system of muscles; each its own double nerve supply; and each has its proper centres in the spinal cord; the splanchnic part in the inner part of the gray matter of the cord—the innermost part of the posterior horns and gray matter; the somatic part in the outermost part of the gray matter of the cord—the outermost part of the anterior and posterior horns and central mass. This conception perfectly agrees with the degree of development of the various portions at various levels of the cord; great breaks occurring in the splanchnic centres where the outflow of nerves for the limbs occurs.

DEGENERATION OF CLARKE'S COLUMNS.

It would be rash to attempt any immediate application of these views to pathology, but it is impossible not to be struck by the fact that Clarke's column lies very close to the focus of the lesion in locomotor ataxy. Charcot states that the fundamental lesion falls at first upon the posterior root zone (Burdock's column), and extends thence into the posterior median column (Goll's column). If, as he supposes, this extension is due to the spread of an inflammatory process by continuity, it seems reasonable to suppose that this extension may take place not only into Goll's, but into Clarke's columns, and as a matter of observation it has been found that in many cases Clarke's columns are distinctly degenerated. Gowers, who makes this statement, quotes Lissauer to the effect that some atrophy of the plexus of fine fibres contained in these columns is almost invariable. In some cases very great degeneration is found, only a few shrunken cells scattered through a translucent nucleated tissue remaining. It will immediately suggest itself to every one that we have here a clue which will afford in time an ex-

planation of the gastric crises of locomotor ataxy.

THE CROOMIAN LECTURE.

The Croomian lecture given on May 28, by Professor Kühne, of Heidelberg, before the Royal Society, was brilliantly successful. Though delivered in German, those who were ignorant of that language were yet able to follow the beautiful demonstrations with ease by the help of an English translation, which was provided. The lecture dealt with the "Causation of Vital Movements," and was directed to prove the fundamental functional unity of living matter. Professor Kühne traced the property of contractility upwards from the irritability of ordinary protoplasm to the highly developed motor apparatus, which characterizes the animal kingdom in its lowest stages. By means of preparations of no ordinary merit he showed that the nerve endings did not pervade the whole of a muscle, and that portions of a muscle which contained no nerves could twitch when stimulated. Contraction must therefore be propagated in such parts of muscle by continuity of muscle substance, and it was demonstrated by experiment that one muscle was capable of exciting another. Professor Kühne was entertained at dinner by the Physiological Society; Professor Michael Foster, of Cambridge, being supported in the chair by Professor Stokes, President of the Royal Society, Sir William Bowman, Sir Andrew Clark, and Sir Joseph Lister.

MYXŒDEMA.

Four years ago the Clinical Society of London appointed a committee, consisting of Dr. Ord (chairman), Professors Victor Horsley and W. D. Halliburton, Dr. Felix Semon and Dr. W. B. Hadden (secretary), to report on the etiology and pathology of myxœdema. The report is now in the printer's hands, and at the last meeting of the Society Dr. Ord communicated the conclusions at which the committee had arrived. These do not present us with any novelties, but are of value as comprising the results of much painstaking investigation by men eminently fitted for the task. The connection between myxœdema and destructive disease of

the thyroid is no longer doubted, and the committee strongly favors the opinion that it also always follows complete surgical removal of the gland, absence of symptoms being due to the presence and subsequent development of accessory thyroid glands, to incomplete removal, or to insufficiently long observation after operation. The committee further expresses the following opinions: (1) That myxœdema is the same disease as that which in children is named sporadic cretinism. (2) That a very close affinity exists between myxœdema and endemic cretinism. (3) That myxœdema is identical with cachexia strumipriva. The most common form of destructive disease of the thyroid is stated to be the substitution of a delicate fibrous tissue for the proper glandular structure. No theory is advanced to account for this fibrous degeneration, and it is stated that no explanation can be yet suggested which would account for the affections of speech, movement, sensation, consciousness and intellect, which are conspicuous features of the disease.

LAPAROTOMY FOR PERITONITIS.

A case recently under the care of Mr. R. W. Parker, in the East London Children's Hospital, is of considerable interest. The patient was a little girl, who suffered from suppurative peritonitis after a severe injury to the abdomen. The absence of any external bruise or wound led some of those who saw her to doubt whether there was any connection between the peritonitis and the injury. Such cases are, however, by no means rare, and a little research would discover cases in which the liver, spleen, bladder, intestine, and, I think, also the stomach, had been ruptured without any marked injury to the parietes. Mr. Parker opened the abdomen by an incision in the median line, let out over a pint of pus, washed out the cavity with perchloride solution, closed the wound, and firmly bandaged on a sublimate wool dressing. The child never had a bad symptom afterwards.

The death of Dr. Timothy Lewis, two years ago, was a great loss to the medical staff of the army. Dr. Lewis was a brilliant student, and passed out

of the Army Medical College at Netley at the head of the class. Together with Dr. D. D. Cunningham, who was the head of the Indian class that year (1868), he was sent first to Germany, to study pathological theories about the fungoid origin of cholera then in vogue, and afterwards both officers were attached for special duty to the Sanitary Commission with the Government of India. From that time down to his appointment to the post of assistant professor of pathology at Netley, in 1883, he was almost exclusively engaged in scientific investigations in India, his chief relaxations being visits of inquiry to centres of epidemic cholera. His essays and reports were generally published in official "Blue Books" issued by the government of India; the India blue books are appalling volumes, of enormous size, badly printed on villainous paper; they contain reports upon reports, recommendations upon the reports, orders upon the recommendations, then fresh reports, and so on, *ad caput*. The publication of scientific memoirs in such volumes, in so far as the outside scientific world is concerned, is tantamount to giving them a decent burial, and the committee of friends and colleagues which was pressed to raise some memorial in Dr. Lewis's memory, has probably done the best thing for his reputation by collecting and publishing his scattered papers in a large quarto, which has just been issued. It is well printed, lavishly illustrated, and carefully edited by Sir William Aitken, the Professor of Pathology at Netley, Surgeon-Major G. E. Dobson, F.R.S., and Mr. A. E. Brown, B.Sc.

FILARIA SANGUINIS HOMINIS.

The work by which Lewis will probably be longest remembered was done in the *filaria sanguinis hominis*. He was the first person to find that parasite in the blood; he gave to it the name by which it is now known; he suggested that it was the active agent in producing tropical chyluria, tropical hematuria, and lymphatic elephantiasis, and he first gave a description, imperfect, it is true, owing to the parasite having been broken, of the adult male worm. We have had to wait, however, for ten years for a more complete des-

cription, recently given by Prof. A. G. Bourne, of Madras (*Brit. Med. Jor.*, May 19, 1888.)

INCUBATION PERIODS.

A good knowledge of the period of incubation of the zymotic diseases is so useful in making a diagnosis, and of the duration of infectiveness in advising the friends as to the isolation of the patient, or the removal of children from the infected house, that I think it well to reproduce the following table from Dr. W. Squire's "Essays in Preventive Medicine." Dr. Squire has for years given very special attention to the subject and has collected an immense series of cases bearing on the question:

Names of Diseases.	Usual time of Incu- bation. (I.)	Possible Intervals. (II.)	For Rash or Other Sign. (III.)	Duration of Infectiveness. (IV.)
Small Pox.....	12 days.....	15 days.....	2 to 3 days.....	3 to 4 weeks.
Measles.....	8 to 12 ".....	18 ".....	3 4 ".....	3 4 ".....
Scarlet Fever.....	2 5 ".....	8 ".....	2 ".....	6 8 ".....
Rubella.....	10 21 ".....	3 weeks.....	1 2 ".....	2 or 3 ".....
Chicken Pox.....	10 14 ".....	2½ ".....	1 ".....	A fortnight.
Mumps.....	12 21 ".....	3 ".....	1 5 ".....	2 or 3 weeks.
Whooping Cough.....	6 12 ".....	A fortnight.....	1 3 weeks.....	6 weeks more or less.
Diphtheria.....	2 12 ".....	A fortnight.....	1 2 days.....	6 or 8 weeks.
Enteric Fever.....	5 20 ".....	A month or more.....	10 12 ".....	4 to 8 weeks or more.
Typhus Fever.....	2 12 ".....	A fortnight.....	5 ".....	3 or 4 weeks.
Cholera.....	2 5 ".....	A week.....	Sudden.....	Uncertain.

THE LIABILITY TO SCARLET FEVER.

In connection with this subject a paper which Dr. Whitelegge, the medical officer of health for Nottingham, recently read to the Epidemiological Society is of interest. He said that a detailed analysis of upwards of 6,000 notified cases showed that the liability to scarlet fever was slight in infancy, reached its maximum in the fourth or fifth year, and diminished every year afterwards. The severity of attack, however, was greatest in the first two years of age, and lessened year by year throughout childhood and adolescence; in adult life there was apparently a slight increase again, the reality of which was open to doubt. The scarlet-fever death-rate reached its maximum in the third year of life in both sexes. Probably about two-thirds of the adult population had escaped attack altogether. Infection from a previous case was the obvious explanation of many cases of human scarlet fever, and might be true of all or nearly all; but it could not be the whole truth. Some further explanation was needed to account for the well-marked seasonal and other

variations in the prevalence of the disease. He seemed disposed to attach a good deal of importance to the alleged transmission of the disease from the cow to man.

The readers of the PHILADELPHIA MEDICAL TIMES will hear with a peculiar regret that Dr. Milner Fothergill is lying very dangerously ill in his house in London, and that his physicians entertain very slender hopes of even a temporary amelioration of his condition.

The General Medical Council has held its summer session and has drawn up a number of recommendations to the universities, colleges and other licensing bodies, with a view to improving the curriculum.

We hear so much of the high standard of education and piety in Scotland that it is a little surprising to be told by the Registrar-General of that country that, though the rate has been falling for a long time, one child out of every ten born in Scotland is born out of wedlock.

DAWSON WILLIAMS.

The proposition of the *Medical World*, that the Greek *delta* be substituted for the drachm symbol in prescriptions, is being very generally discussed. As to the advisability of a change from the present symbol there is no difference of opinion. It would perhaps be of interest if our contemporaries were to inquire how many deaths occurred from mistaking this sign for the ounce, within the knowledge of his readers. Whether the Δ is the best substitute is questioned. It is not so easy to write in a hurry as the old symbol; but is preferable to the more tedious method of writing out the word in full. Meanwhile no better substitute has been proposed.

REVIEWS AND BOOK NOTICES.

OBSTETRIC SYNOPSIS. By JOHN S. STEWART, M.D. Philadelphia, 1888. Published by F. A. Davis. 12mo, pp. 202. Price, \$1.00.

This book has had some unfavorable notices, chiefly because it is not something it was not designed to be: a system of midwifery. Some persons grumble because a pint mug is not a hog'shead; not reflecting that each has its place.

Diverse conditions of medical study require different text-books. In Europe, where men may dawdle away a dozen years in supposititious attendance at a university, there is no need for conciseness in their books for study. Here the custom of the country is to crowd the entire training of the future physician into two or three years. What then? As we cannot alter the custom, as it is looked upon as the deepest disgrace if a man fail to take his degree in the shortest possible period, the need has grown up of a series of elementary text-books, giving in the briefest space the information which the student *must* know, not all he ought to know. The more voluminous works are to be studied in the preceptor's office during the summers, when the schools are closed; while the "quiz compends" and "synopses" are to be kept as companions to the lecture course. In truth, when the student attends from six to eight hours of daily lectures, spends his evenings in the dissecting-room, and any unoccupied hours in the laboratories and quiz rooms, it is difficult to see when he has time for any reading more extended than that contained in these little books.

This much for the consideration of those who appear to need it; we now may consider whether the work is well done. For a young author, who has but recently assumed the doctorate, the book is highly creditable. A few defects in the workmanship appear on close examination, but less than one would expect. The brevity is perhaps carried a little too far for our taste; but we are no longer a young student, and are not sure that we would have found it too brief twenty years ago. The teaching is quite in accord with the modern

ideas. In the chapter on eclampsia, too much prominence is given to the influence of albuminuria; but this is a fault on the right side, if it directs the student's attention to what he might otherwise neglect. The nervous irritability which often precedes the convulsions might have been noticed, and the remedies suggested should have their doses and mode of administration stated more definitely.

Apart from this, we see little to find fault with. For the student and the young practitioner to carry to the bedside, it is an excellent little work.

DISEASES OF THE SKIN. By W. ALLAN JAMIESON, M.D., F.R.C.P. Ed., etc. Philadelphia, J. B. Lippincott Co., publishers, 1888. 8vo, cloth, pp. 546. Price, \$6.50.

The author acknowledges his indebtedness to Hutchinson and Unna. Of American authors, Bulkley and Duhring are most frequently quoted. The colored plates are somewhat better than those in Shoemaker's book; but in other respects the present work does not come up to the standard of the Philadelphian. Jamieson has much less of original matter; his treatment is fairly correct, being upheld by good authority; but the descriptions of diseases are scarcely as clear and succinct. Still, it fairly expresses the views of the majority of dermatologists as to treatment at the present time.

A COMPEND OF HUMAN PHYSIOLOGY. *Especially adapted for the use of Medical Students.* By Albert P. Brubaker, A. M., M. D. Fourth edition, revised and enlarged. Philadelphia, P. Blakiston, Son & Co., 1888.

That a fourth edition of this little work has been called for is a satisfactory evidence of its value to the medical student. We see no need of decrying this class of books, as is the habit with some. They do not usurp the place of larger text-books on the various subjects; but as they contain so much important matter in so small a space they are of almost universal use among medical students in "boning up" for an examination.

PROTOBIOLOGY, OR THE PHILOSOPHY OF LIFE. By Joseph W. McEwen, M. D. Philadelphia, Phillips & Williams, 1887.

This rather pretentious title belongs to a little work of neat binding, typography, and general make-up.

A feature of the book is a comparatively extensive analysis in the first pages of each of the nine chapters; making it easy to gather in a few minutes the trend of the work.

As for the matter of the book itself, it is of an unpleasantly dogmatic character, though this is doubtless made somewhat unavoidable by the large extent of the subject and the small contents of the book.

For instance, in accounting for first life, he gives this showy sentence: "Heat and light acting upon and tempering water to a certain condition, causing the nascent state, eventually, as by magic, produced the germs which were subsequently requisite to reproduce every form of vitality, consequently establishing in the twinkling of an eye the whole great fact of the First Parentage; all else being the result of time, place and circumstance." This high-sounding sentence makes the "great fact" to us neither a "most accountable" nor "reasonable" process.

TRANSACTIONS OF THE NEW YORK STATE MEDICAL ASSOCIATION FOR THE YEAR 1887, VOL. IV. Edited for the Association by Alfred Ludlow Carroll, M. D. Concord, N. H., Republican Press Association; New York, J. H. Vail and Co.

The volume contains a number of colored illustrations, and portraits of Alonzo Clark and two other deceased members.

THE PRINCIPLES OF CANCER AND TUMOR FORMATION. By W. Roger Williams, F. R. C. S. London, John Bale & Sons, '87-'89, Gt. Litchfield Street, Oxford St., W.

ESSENTIALS OF CHEMISTRY AND URINALYSIS. By Samuel E. Woody, A. M., M. D., 2d edition, with 85 illustrations. Louisville, John P. Morton & Co., \$1.25.

Such of the essentials of chemistry as can be compressed into 128 duo-

decimo pages are here very fairly presented. That there is a demand for these books is shown by their rapid multiplication and the exhaustion of successive editions.

ON INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND PHTHISIS. By Wm. Julius Mickle, M. D., F. R. C. P. London, H. K. Lewis, 136 Gower Street, W. C. 12mo., pp. 93.

This is the substance of the Goulstonian Lecture, reprinted from the *British Medical Journal*.

MANUAL OF THERAPEUTICS. By K. Futakami, editor of the *Tokio Idzhi Shinshi*, Tokio, Japan.

ESSENTIALS OF CHEMISTRY AND TOXICOLOGY FOR THE USE OF STUDENTS IN MEDICINE. By R. A. Witthaus, A. M., M. D. 2d edition. New York, Wm. Wood & Co.

In 1053 questions and answers the author covers the field of chemistry.

WHAT TO DO FIRST IN EMERGENCIES. By Charles W. Dulles, M. D. 3d edition. Philadelphia, P. Blakiston, Son & Co. Price, 75 cents.

THE INFECTIOUS DISEASES. By Karl Liebermeister, Vols. 1st and 2d. **THE MODERN TREATMENT OF PLEURISY AND PNEUMONIA.** By G. M. Garland, M. D. **THE DISORDERS OF MENSTRUATION.** By Edward W. Jenks, M. D.

The above are four numbers of the Physicians' Leisure Library, published by George S. Davis, Detroit. They are very commendable works, on every-day subjects, by capable authors, and published at a price which puts them within the reach of all.

PAMPHLETS.

PROCEEDINGS OF THE STATE SANITARY CONVENTION, HELD AT PHILADELPHIA, 1886. Harrisburg, Edwin K. Meyers, State Printer.

THE CAUSATION OF PNEUMONIA. By Henry B. Baker, M. D. Printed and distributed by the Michigan State Board of Health.

ANNUAL REPORT OF THE PROVOST OF THE UNIVERSITY OF PENNSYLVANIA FOR THE YEAR ENDING OCT. 1, 1887.

TYPHUS AND RELAPSING FEVERS IN EGYPT. By F. M. Sandwith. Reprint from St. Thomas' Hospital Reports.

HEART AND BLOOD-VESSELS IN THE YOUNG. By A. Jacobi, M. D., New York. (*Brooklyn Medical Journal.*)

GRADUATED TENOTOMY IN THE TREATMENT OF INSUFFICIENCIES OF THE OCULAR MUSCLES. By C. H. Thomas, M. D. (Transactions Phila. County Medical Society.)

CLINICAL NOTES ON PRURITUS. By L. Duncan Bulkley, A. M., M. D. (*Jour. Cutaneous and Venereal Diseases.*)

THE RESULTS OF LAPAROTOMY FOR ACUTE INTESTINAL OBSTRUCTION. By B. Farquhar Curtis, M. D. (Transactions Medical Society of New York.)

THE INTRA-UTERINE STEM IN THE TREATMENT OF FLEXIONS. By A. Reeves Jackson, A. M., M. D. (Gynecological Transactions.)

THE PHYSIOLOGICAL ARGUMENT IN OBSTETRICS. By A. F. A. King, A. M., M. D. (*American Journal Obstetrics.*)

PAPILLOMATOUS CYSTIC TUMOR OF OVARY. By L. H. Laidley, M. D. (*Journal American Medical Association.*)

AN OPHTHALMIC GLOSSARY. By Peter D. Keyser, M. D. (*Medical Register.*)

INFANT FEEDING WITH REFERENCE TO ECZEMA. By L. Duncan Bulkley, A. M., M. D. (*Journal American Medical Association.*)

THE ISCHIATIC CRUTCH. By A. B. Judson.

SOCIETY NOTES.

PHILA. COUNTY MEDICAL SOCIETY.—Dr. G. E. de Schweinitz read a paper on Habit Chorea. In some cases an examination of the eyes revealed defects, the correction of which materially assisted in effecting a cure of the chorea. The author pointed out quite clearly the duty of the physician in these cases to examine the eyes for ocular defects; especially as neglect may render the habit permanent.

Dr. George E. Shoemaker read a paper on Reflex Cough from Pregnancy.

He detailed a case in which a patient suffered with nervous cough, coming on when she lay down at night, in three successive pregnancies.

BALTIMORE GOSSIP.

DR. GEO. MILTENBERGER, the popular professor of obstetrics in the University of Maryland, recently met with a painful accident. In coming down stairs from a patient he slipped and fell, rupturing the tendon of the right quadriceps extensor. It is rumored that all the fashionable mothers, prospective, are trying to delay the hour of travail until the genial accoucheur is able to get about again.

Among the deaths just announced is that of a Mrs. Bessee who is claimed to be a centenarian. The evidence is, however, not conclusive.

The Johns Hopkins Hospital, which has been in process of construction for over ten years, is nearly completed, but it is rumored that its opening will be deferred for another year on account of the failure of the Baltimore and Ohio railroad to pay the usual dividend on its common stock. A large proportion of the funds of the Johns Hopkins trust is invested in the "securities" of this road, which seem of late to have grown quite insecure. The work of the University is said to be seriously cramped on account of its reduced income. The fellowships and scholarships have been diminished in number and value, the tuition fees increased, and there is even talk of reducing the salaries of the faculty next year.

It is to be hoped that this unfortunate financial distress will be only temporary.

RHIGOLENE FOR MUSCULAR SPASM.—In a case of spasmodic contraction of the left trapezius muscle in which the circle of ordinary remedies had been tried in vain, Sinkler used the rhigolene spray. In two weeks most marked improvement was noticed. Weir Mitchell has used this treatment successfully for spasm of the facial muscle. Be careful not to apply the spray too long, as an ulcer has followed three-quarters of a minute's spraying.

Ground has been broken for the new hospital of the College of Physicians and Surgeons. The building will be five stories high and have accommodations for 300 patients. The hospital will be under the management of the Sisters of Mercy.

A new sanitarium for children has recently been opened at Mount Airy in this State. The institution owes its existence to the liberality of Mrs. Robert Garrett, the wife of the former president of the B. & O. railroad. Dr. Walter B. Platt has charge of the medical service of the sanitarium.

The delegates from this city who attended the recent meeting of the Pennsylvania State Medical Society are loud in their praises of the courtesy and hospitality of their Philadelphia brethren.

The Baltimore University Medical School has strengthened its faculty recently by the addition of Drs. Thos. B. Evans, J. W. C. Cuddy, and E. M. Reid.

The Baltimore Medical College has purchased a lot adjoining the present college and hospital, upon which a lying-in asylum will be built.

Dr. Sternberg, who was sent to Havana by President Cleveland to continue his investigations into the etiology and prevention of yellow fever, has just returned and will submit his report to the President in a few days. His opportunities for investigation have been good, and have enabled him to reach some interesting results. His reports will be anxiously awaited. G. H. R.

ABSTRACTS.

TWO NEW RETINAL SYMPTOMS IN BRAIN DISEASES.

By ALBERT G. HEYL, M. D.,
of Philadelphia.¹

Dr. Heyl called attention to the close connection between the retinal and brain circulation and to the probability that abnormality in the latter could be recognized by the ophthalmoscope. Two observations made by him bearing on this were then described: 1. The injection of a series of fine vessels

which come off at right angles to the main retinal trunks. In normal conditions these vessels are not seen, but in certain cases of circulatory disturbances of the meninges of the convexity of the brain, as in a case of penetrating wound, cases of melancholia, nervous exhaustion, etc., they become injected to such an extent that they can be recognized.

2. In certain cases of mental weakness, manifested by rambling talk, lack of mental grasp, weakness of memory, it was observed that dichotomous branches coming off from main retinal arteries showed an abnormal decrease in calibre. Cases were cited showing that this probably had something to do with the ventricular pressure in the brain and therefore with the large arterial trunks at the base of the brain, viz., the circle of Willis and the large trunks connected with it.

VAGINAL OOPHORECTOMY.—Dr. H. T. Byford, in *American Journal of Obstetrics*, April, 1888, reports twelve successful cases of the removal of the uterine appendages and small ovarian tumors, by vaginal section. He advises the operation in those cases in which the uterus is retroverted or easily displaced backward and in which the ovaries can readily be reached by two fingers introduced into the vagina and *cul-de-sac*. He claims for this procedure the following advantages:

1. The ovaries and tubes when they lie down in the pelvis are reached with much less interference with the intestines; the shock and the reaction are less, and in case of difficulty in separating adhesions, the resulting inflammation is much less apt to spread to the abdominal cavity.

2. The wound is less in extent, is at the lower end of the abdominal cavity, is better situated for drainage, concealed, and is less liable to be followed by hernia.

3. The bands of adhesion can in this class of cases be more readily drawn into the field of vision and tied.

4. Hot water, ice and other hæmostatic agents can be used with less danger.

5. Advantage can be taken of the

¹ Abstract of a paper read before the Penna. State Medical Society, June, 1888.

temporary exudate in the *cul-de-sac* to fix the retroverted uterus in a normal position.

6. When much time is required, there is much less of that danger which comes from leaving the abdominal cavity open a long time in abdominal section.

7. The statistics, other things being equal, favor it.

PAPOID IN LOBSTER POISONING.—Starting with the hypothesis that the so-called lobster-poisoning is due to the coagulation of milk by the lobster's digestive fluid, Dr. A. M. Cushing (*Medical World*) has made some interesting experiments. Having obtained some of this digestive fluid, he found that it coagulates milk into a very firm mass. Alcohol and ether increase the firmness of this coagulum; acids and alkalies have no effect upon it; while trypsin softens it in an hour, pepsin in five minutes, and papoid in three minutes reduces the mass to the consistence of an emulsion.

TAPE WORMS.—Gerhard has used Schaffint's remedy for tape worm—in every case with complete success:

R Granati cortici radice..... $\frac{3}{4}$ ss
Seminorum peponis..... $\frac{3}{4}$ j
Pulveris ergotæ..... $\frac{3}{4}$ j
Aquæ bullientis..... $\frac{3}{4}$ vij

Fiat infusion.

R Extracti filicis maris ætherici..... $\frac{f}{3}$ j
Olei tigllii..... $\frac{m}{x}$ j
Pulveris acaciæ..... $\frac{3}{4}$ j

Fiat emulsio.

Mix the emulsion with the infusion for one dose, to be given at 10 o'clock in the morning, having eaten no breakfast, and having taken a full dose of Rochelle salts the previous evening. In every instance but one the parasite was expelled alive, in about two hours after taking the medicine. One singular peculiarity is the fact that the worm is nearly always voided entire, with its head fastened to the side of its own body, which very much facilitates the finding of that very important portion of the animal.

MUCOUS PATCHES.—A solution of chromic acid is perhaps the best application to mucous patches, especially to those in the mouth and the pharynx. Use from two to five grains to the ounce.

LETTERS TO THE EDITOR.

FOR EPILEPSY.

Editor MEDICAL TIMES:

In the June number of the *TIMES*, page 546, H. C. B. has an inquiry in regard to epilepsy, and you recommend quinine. I would like you to try at your first opportunity the tincture of *eananthe crocata* in half drop doses. I have given it in only two cases, and there has been no return of the convulsions since its administration was commenced. Over six months ago, one case, a woman, had epilepsy of two years' standing, following the menopause. The second case was a man, forty years of age, with a syphilitic history. These are all that have called on me for treatment, so that my experience with the remedy is limited. C. S.

DIAGNOSIS WANTED.

EDITOR MEDICAL TIMES:—Will you be kind enough to help me, as I am in a tight place: namely, I have a case that I cannot well understand. A gentleman, age about thirty-five or thirty-six years, has an eruption which is located in the palm of the hand; commenced in a very small spot, and in the space of three years, during which time it has been troubling him, it has spread all over the entire palm of the hand. Hand cracks, is very tender and sore; he thinks that it was caused from cleaning some fish which had been kept out of the water a considerable time before cleaning, as he never noticed it before.

Covena, Ga.

J. M. N.

[Possibly a syphilitic psoriasis; give him mercury.]

ICHTHYOL.—For *Rheumatic Affections*:

R Ammon. sulphichthyolat..... $\frac{3}{4}$ ijss
Chloroformi..... $\frac{m}{x}$ xlv
Lanolini..... $\frac{3}{4}$ ijss

M. S.—For local use; to be rubbed in.

For *Cystitis*:

R Ammon. sulphichthyolat...gr. iss ad. ivss
Aquæ dest..... $\frac{f}{3}$ vj- $\frac{f}{3}$ v

M. S.—Dilute with an equal quantity of warm distilled water and with this wash out the bladder.

MISCELLANY.

THE COMMUNICABILITY OF
TUBERCLE THROUGH
COW'S MILK.

By LOUIS PARKES, M. D., D. P. H. Lond.
Assistant to the Professor of Hygiene, University College, London.

THAT cow's milk is not uncommonly a vehicle for the transmission of infectious disease to the human subject is now well understood. The evidence in support of such a mode of propagation is in many cases incontestable. Enteric fever, scarlet fever, diphtheria, and a disease resembling the foot-and-mouth disease of cattle are known to have been spread by means of the milk-supply. There is one other disease, tuberculosis, in which cow's milk has not been definitely proved to have served as a carrier of contagion; but amongst those who have made a study of the subject the view in favor of such a mode of propagation is regarded as containing the elements of extreme probability.

Cattle are very susceptible to tubercle. Prolonged lactation in the human female is well known to be a frequent precursor of phthisis, and it is not to be wondered at that, under such circumstances, and with the additional factors of confinement, want of exercise, and bad air, cows should succumb to a malady to which they are in a high degree susceptible.

The best bred animals, which are also usually the best milkers, are those which are soonest affected. In the early stages the symptoms of the disease are ill-defined, the health of the animal is apparently not interfered with, and the milk secretion is as abundant as ever. It is not until the disease is well established that nutrition is interfered with; and even then, unless the amount of milk is seriously lessened, the dairy farmer continues to keep the animal in stock. So far as known at present, the milk of tuberculous cows is free from tubercle bacilli, unless there has been—as is sometimes the case—a deposition of tubercles in the glands of the udder.

It would be extremely interesting to know in what percentage of cases the

mammary glands are involved in the process of tuberculization, and at what stage of the disease such involvement usually commences. Milk which contains tubercle bacilli, when given to guinea-pigs and rabbits, causes tubercular deposits in the lymphatic follicles lining the intestinal walls, followed by tubercles in the mesenteric glands, peritoneum, liver, spleen, and general tuberculosis (Klein). Milk which is free from tubercle bacilli, although derived from undoubtedly tubercular cows, has not so far been found to be productive of tuberculosis in calves and other animals to which the milk was given.

It may be fairly assumed that in many of those cases of primary tubercular ulceration of the intestines or of tuberculosis of the peritoneum and mesenteric glands, which occur in the human subject, the tubercular virus has been introduced with the food, and the absorption of the virus has taken place through some part of the digestive tract. These diseases are usually primary in young children; in adults they are mostly secondary to tubercular disease of other organs, especially of the lungs. On referring to the Registrar-General's Summary it is seen that in the ten years 1871-80 tubercular peritonitis and its allied disease, tabes mesenterica, caused amongst children under 5 years of age an average mortality of 2.55 per 1,000 per annum. More than twelve times as great as the corresponding mortality from these diseases of any other age-period of five years, from the age of 5 up to 100. Primary tubercular disease of the lungs in children under 5 years of age is a comparatively rare event. The average annual mortality from phthisis of children under 5 years for the decaennium 1871-80 was only 0.77 per 1,000, and possibly some of the cases so registered were really secondary to primary tuberculosis of the abdominal organs. The extreme incidence of primary tubercular disease of the abdominal lymphatic system on young children is at once seen from these figures. In the matter of dietary there is one great distinguishing feature between this age period and all others. Under five years of age, milk—usually

unboiled—forms the staple food of children.

In every dairy of any size there will probably be tubercular cows, some of them, perhaps, with tubercular deposits in the udders; and as it is the common custom with dairymen to mix together the milk yielded by different cows, it is not too much to assume that tubercle bacilli may be widely distributed in the milk supply of any town. It has been said that the tuberculosis of cattle is not the same disease as the tuberculosis of man, and that the absence of any proof of the human variety having ever been dependent upon ingestion or inoculation of the virus of the bovine variety tends to strengthen such a belief. To this it may be replied that the bacilli of bovine tuberculosis are identical—according to all bacteriological methods at present known—with those found in tubercular formations in the organs of man, and that although the disease presents anatomical differences in man and cattle, these differences may be explained as being due to differences of soil in the human and bovine tissues, the bacilli ingrafting themselves in those tissues which present conditions most favorable to their growth and development. Secondly, absence of proof may only mean want of observation or recorded data, and cannot be held to imply that at no future time will satisfactory evidence of the dependence of the human disease upon a bovine source be brought to light.

Having regard to all these considerations, surely the time has arrived when a radical change in the present methods of milk production and milk consumption is urgently needed. In the first place it should be rendered illegal for cows known to be suffering from tuberculosis to be kept in stock by dairymen and farmers for milking purposes; and, secondly, in no household should unboiled milk be consumed, more especially by children. No other animal food is consumed by civilized nations in an uncooked state; and by the light of our recently acquired knowledge it would appear that there is as much, or more, danger connected with the practice of drinking unboiled milk as of eating raw flesh.

Exposure to the heat of boiling water

for five minutes destroys the life and action of the tubercular virus (Klein); and the same is true of the other specific disease poisons. By such simple means, then, is it possible to guard against an ever present source of danger, as well as to obtain protection from those possibilities of the introduction into our bodies of the viruses of enteric fever, scarlet fever, and the like, which the experience of past epidemics has taught us to be latent possibilities in milk, with powers of development at the most unexpected periods. —*British Med. Journal.*

NITRO-GLYCERINE.—Struck by the marked similarity of the physiological action of this drug to that of nitrite of amyl, Murrell determined to give it a trial in angina pectoris. His success was most gratifying. The nitro-glycerine not only mitigated the severity of present paroxysms, but seemed to have a more or less permanent influence. This has been attested by numerous subsequent observers. It has also been used advantageously in hysterical aphonia, asthma, headaches (especially of the angio-spastic form), albuminuria, tic-douloureux, etc. It has also been recommended as a substitute for alcoholic stimulants, the claim being made that one-half drop of the one per cent. solution is equal in stimulating effect to an ounce or more of brandy. For this reason it has been prescribed in the collapse of typhoid fever, shock after accidents, and in certain forms of hypochondriasis. Personally, I have had this drug under observation for the past fifteen months, and have prescribed it in true angina pectoris, simple nervous cardiac palpitation, the pain and palpitation of organic heart disease, in the cardiac pain and dyspnea of chlorosis, and in several cases of the so-called "alcoholic" and "tobacco" heart. I have also used it in spasmodic asthma, intercostal neuralgia, and muscular rheumatism, and, experimentally, in chronic bronchitis with dyspepsia. The principal object of my investigation, however, was with reference to its action in painful and irritable conditions of the heart. The paucity of therapeutic agents available in these affections, especially in angina pectoris, renders ad-

ditional knowledge of such remedies greatly to be desired. A number of the patients for whom I prescribed the drug disappeared from observation before an opinion could be formed as to the results. In a majority of them, however, it was fairly tested, some of the patients taking it during a period extending over several months, while others are still under treatment.

I have observed the effects of the drug in twenty-eight different cases, and in only four has it absolutely failed. In all the others more or less relief was obtained, and in some the effects were most gratifying. As far as I have been able to judge, however, its effects are only temporary, even in cases independent of organic lesions. It may be regarded simply as a symptom medicine, and one which probably exerts little if any permanent effect on the course of diseases of the heart. It undoubtedly has its sphere in the treatment of painful and irritable conditions of this organ, however, and for the temporary relief of these conditions it has seemed to me to be rather more reliable than any other single remedy.

—CROOK, in *Post-Graduate Journal*.

AN EPIDEMIC OF MILK TYPHOID.—In the *Practitioner*, Brown records an outbreak of typhoid fever which occurred in Carlisle. The first case was at a dairy, and during the succeeding ten weeks twenty more followed, all being in persons who used milk from that dairy, with one possible exception.

The hygienic condition of the habitations was good, and the water supply the same as the rest of the city. A febrile disease having a very striking resemblance to human typhoid existed among the cows at this dairy several times during the four years preceding this outbreak.

We may have too many medical journals, as we have too many doctors, shoemakers, tailors, and far too many preachers. The new comers, however, appear to fill niches especially fitted for them. The May number of the *Brooklyn Medical Journal* is so good that it fully vindicates its claim to existence.

The *Texas Health Journal* will soon be a competitor for public patronage.

It is gratifying to note, in the establishment of such publications, the increased attention which is given to hygienic conditions. While the great State of Texas is as yet comparatively free from the evils which beset our crowded communities in the East, she wisely takes time by the forelock in instructing her citizens how to keep their localities in a salubrious condition.

The proposed new journal will be under the editorial charge of Dr. J. R. Briggs. This gentleman certainly appears to possess the confidence of his associates, as he has twice received prizes of \$100 each for essays on medical topics, from the State Association.

We hope he will be equally successful in commanding the support of the public in his new and commendable project.

In the *New England Medical Monthly* Hutchinson speaks of the absence of catarrh in the West Indies. An American, sitting in the club-room one day, had occasion to clear his throat, whereupon everybody turned round and stared at him in such a way that he was compelled to apologize by saying that catarrh is so common in the States that nobody notices such an occurrence there.

It is a pity Dr. Hutchinson did not tell us what effect a residence in Barbadoes has upon catarrh, though he intimates that it is beneficial.

The treatment of disease by climatic influence has a growing interest to the profession. What is needed is accurate information upon the subject, from authorities more trustworthy than hotel proprietors, whose pecuniary interests render them too easily persuaded that their own localities are curative of every ill that flesh is heir to.

The West Indies are within easy reach; the means of reaching the various islands are not too expensive, and living is in general cheaper than at home. During the winter there is nothing to be feared from tropical diseases, and even in summer the danger is far less than is generally believed.

THE GALVANIC METHOD OF TREATING THE VEGETABLE PARASITIC DISEASES OF THE SCALP; WITH A REPORT OF CASES.—Prof. Henry J. Reynolds, M. D., of

Chicago, read a paper on this subject in the Section on Dermatology and Syphilography at the meeting of the American Medical Association at Cincinnati, May 10: He said the reason that all heretofore adopted methods for treating these diseases had been ineffectual was because the parasiticide applications employed to destroy the fungus could not be so applied as to penetrate the hair follicles and into the hair structure itself, the parts invaded by the growth. Any parasiticide so applied as to reach the growth will very readily cure the disease, as is so frequently demonstrated in those manifestations which occur upon the non-hairy skin—*tinea circinata*, *tinea versicolor*, etc. The great object to be attained therefore must be the penetration of the remedy employed to the inaccessible parts. He had shown over a year ago in a paper read before the same Association that a solution of cocaine applied to the sound integument could by the means he employs be induced to so penetrate and permeate the cutaneous tissues as to produce complete local anæsthesia of these parts, a result which must show that every portion of these structures had been permeated by the drug. In making these experiments he conceived the idea that the same principle might be applied in the treatment of the vegetable parasitic diseases of the scalp and the penetration of the parasiticide to the bottom of the hair follicles be induced in the same manner by the same method. The means he employed for this purpose is the galvanic current. He applies, first having washed well with soap and water, a one per cent. solution of bichloride of mercury or other parasiticide lotion, with the sponge of the positive electrode of a McIntosh battery to the affected part for about ten minutes once a day, the circuit being completed by placing the negative on some adjacent point. The strength of the current must vary with the size of the electrode, the irritability of the part, etc., the object being to apply the strongest current that can be borne by the patient. He had read a paper on the same subject at the International Medical Congress at Washington, and now submitted a report of ten

additional cases treated by it, eight in Europe, and two by himself, all of which were cured in an average of less than three weeks each, and many of which had resisted all other forms of medication for years.

He stated that Drs. E. Charon and G. Gevaert of the Hospital de St. Pierre, Brussels, who had treated eight cases of *tinea tonsurans* successfully by the method in an unusually short space of time (*Journal public par la Societe Royale des Sciences Medicales et Naturelles de Bruxelles*) said:

"We have, therefore, at our disposal a powerful medium capable of carrying to the interior of the hair-sheath an energetic parasiticide.

"In our experience we have come to the conclusion that the modification of the diseased patches, treated by the continuous current and the sublimate, are manifested from the very outset of the treatment, and that all other proposed means of treatment cannot be submitted in comparison with this new mode of Prof. Reynolds', at once efficacious and rapid, the patches presenting immediately a smoother, more pliable and less scaly surface, and the diseased hair seeming to at once resume vitality. At the end of three or four days the contrast between the diseased and healthy areas is less marked, the duration of the treatment depending upon the chronicity of the trouble and the modified conditions of the disease, which may have been induced by the influence of previous medications.

"We have, therefore, by the ingenious invention and method proposed by Dr. Reynolds, a horizon of new experiments opened up to the dermatologist for the treatment of these heretofore almost incurable diseases of the skin."

PARALYSIS AGITANS.—Sinkler prescribed oxide of zinc, grs. two, three times a day; and ten-drop doses of fluid extract of hyoseyamus as frequently.

FOR BURNS OF THE FIRST TWO DEGREES. (*Nikolsky*).—

R	Tannin	
	Alcohol.....	ââ 3 j
	Etheris.....	3 j

M. S.—Apply on pledgets of lint.

PHILADELPHIA MEDICAL TIMES.

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No. 537.

JULY 16, 1888.

VOL. XVIII

ORIGINAL COMMUNICATIONS.

THE SPECIFIC TREATMENT OF TYPHOID FEVER.¹

By WILLIAM F. WAUGH, A.M., M.D.

WHEN Klebs told us of the bacillus typhosis in 1881, he recommended as a suitable remedy the benzoate of sodium or of magnesium.

His reason for preferring these salts over carbolic and salicylic acids and other germicidal remedies, was that none of the latter could be given in really efficient doses, continuously, for a sufficiently lengthy period, to accomplish the object, without causing undesirable and injurious effects in the patient. He recommended that the benzoates be used by inhalation, by gargling, and given internally in doses of 320 grains per day.²

Since the publication of Klebs' discoveries in 1881, I have made use of the remedies he suggested in all my cases of typhoid fever up to last fall, with very fair results. The cases usually ran a mild course; were free, as a rule, from alarming accidents, and the death-rate was low. But, on looking back over this period, and taking into account the results of increased care in

nursing, feeding and watching my cases, together with the disuse of irritants like quinine and the mineral acids, I am unable to say that there was any improvement distinctly due to the use of the benzoates. As a speaker once said, concerning the bacillus tuberculosis: "We do not need him; we can explain all the phenomena of the disease without him."

During the summer of 1887, I began the use of the sulpho-carbolate of zinc in summer complaint. The results of this treatment have been already published. Suffice it to say here that the success which ensued was, in my opinion, clearly due to the addition of this drug to the treatment.

There can hardly be a doubt that we have in summer complaint (using the word to cover all the varieties of summer diarrhœa) the action of a specific microbe which has made the gastro-intestinal canal the seat of its operations; and that the hot head, the fever and the symptoms of the so-called hydrencephaloid, are due to the absorption and circulation in the blood of the poisons generated by these organisms in the intestinal canal.

That the cause of death is not exhaustion from diarrhœa in all cases, is patent to every observer who has seen patients die, when the discharges had

¹ Read before the Pennsylvania State Medical Society, June 7, 1888.

² PHILA. MED. TIMES, Dec. 3, 1881, p. 152.

been stopped while the fever and cerebral symptoms increased.

Several notable phenomena followed the administration of sulpho-carbolate of zinc in this disease:

1st. The irritability of the stomach was relieved from the time the first dose was given.

2d. The stools at once changed in their condition, losing the fetid odor which previously characterized them.

3d. The heat of the forehead disappeared, as did that of the epigastrium; the cerebral symptoms improved at once, and in case the fever was high, it fell to near the normal point.

That these results were due to the local germicidal action of the drug is shown by the fact that, when the discharges partook of the dysenteric character, the administration of the drug by the mouth proved insufficient; but a speedy cure resulted when the zinc salt was given by enema.

It was found that infants in their second summer bore two-grain doses of this drug very readily, showing it to be far less irritant than the ordinary salts of zinc.

These results, it will be seen, are quite consistent with the theory that the general symptoms of summer complaint are due to an intoxication of the blood with the products of the disease-germs; not an invasion by the germs themselves, as, in that case, the local action of a germicide in the intestinal canal could not account for the beneficial results.

This experience in summer complaint led me to give the same agent a trial in typhoid fever. Here we have a somewhat similar condition: a specific micro-organism inhabiting the intestinal canal and producing general symptoms. If the sulpho-carbolate prove as efficient a germicide as in the other disease, it will enable us to separate the symptoms due to the poisons generated by the disease-germs in the intestinal canal from those produced by those germs which have penetrated beyond the reach of germicides.

I find, on looking over my notes, that I have treated twelve cases with the zinc salt.

Three of these were diagnosed as incipient typhoid, including one in which

Dr. Goodman called me in consultation, and in which we agreed as to the diagnosis. In these three cases the symptoms disappeared when the sulpho-carbolate was given; so that the diagnosis must be considered doubtful.

The others were well marked. In one case I was called in the second week. Repeated hemorrhages from the bowels had reduced the patient's strength greatly; her pulse was very rapid and feeble; the temperature rose to 105° ; and her stomach could retain nothing. During the afternoon following my first visit she had another hemorrhage; but, with this exception, her improvement was uninterrupted and remarkable for so severe a case. The gastric irritability disappeared with the first dose; the hemorrhage ceased, the stools became odorless, the diarrhœa stopped, the tympanites subsided, and the temperature never thereafter rose above 102.5° .

In another case, which I attended for my friend, Dr. Woodbury, and in which, I am informed, Dr. Cleeman coincided as to the diagnosis, the temperature never rose above 103° and the diarrhœa ceased when the zinc was given. There were scarcely any cerebral symptoms and the disease ran an unusually speedy course.

In one case the treatment failed to save the patient. This was a hospital case which had run on into the third week, with profuse diarrhœa, repeated intestinal hemorrhages, profound prostration and the gravest cerebral symptoms. It was with difficulty his attention could be roused, and for some time he had recognized no one. It had been found necessary to give him stimulants hourly.

This was his condition when I went on duty. All that a local germicide could do was accomplished by the sulpho-carbolate of zinc: the temperature fell 2° ; the hemorrhages were stopped, as well as the diarrhœa; and the frightful fetor of the stools disappeared. The man lingered for four days—thanks to the excellent regimen instituted by my predecessor—and then died, comatose. In this case there was evidently an invasion of the blood by the typhoid bacilli. This was the only death; and, under the circumstances narrated, I do not consider that it should be counted

in estimating the value of the treatment.

Not to weary you with the repetition of case-histories, I will sum up the effects of sulpho-carbolate of zinc by saying that in every case its use was followed by:—

1. Relief from gastric distress.
2. Disappearance of fetor from the stools.
3. Moderation or stoppage of diarrhœa.
4. Ceasing of hemorrhage.
5. Ceasing of tympanites.
6. Reduction of the temperature by two to three degrees, with a corresponding improvement in the cerebral symptoms, except in the case detailed above.

There are some cases occurring in this city of doubtful pathogeny, which are sometimes classed as typhoid, sometimes as typho-malarial. They are characterized by fever, which ranges from 102.5° in the morning to 104.5° in the evening; dry tongue, brown in the centre, but coated to the tip and edges; tenderness in the epigastrium, but not in the iliac fossæ; great debility, anorexia and gastric irritability, but no diarrhœa unless a laxative is given, in which case profuse catharsis ensues, with an aggravation of all the symptoms. I have never found the typhoid spots in these cases. Quinine could not be borne by the stomach, but gave great relief when given by suppository in scruple doses.

In these cases the sulpho-carbolate of zinc, in doses of three to five grains every two hours, effects a cure so rapidly that I am constrained to believe that the disease in question is due to a microbic invasion of the stomach.

Permit me, in conclusion, to advert briefly to the diet of typhoid fever. About a year ago the great French clinician, Dujardin-Beaumetz, referring to the use of milk in typhoid fever, stated that this food could only nourish through its water and salts: as neither the casein nor the fat can be absorbed; and hence these substances are injurious. It struck me as significant that, although this statement was made in the Academy of Medicine, where so many keen-witted men are continually on the lookout for opportunities to distinguish themselves, and where, as in

the case of Professor Peter, one man rather enjoys the prospect of being arrayed against the whole body of his fellows, not one voice was raised in defence of milk.

And yet there is a source of fallacy in the case against it, on which an argument might be hung: in that the typhoid process may not affect all the lacteals—at least not all at the same period, and hence some absorption may take place.

Be this as it may, the researches of Vaughan on tyrotoxinon may well raise a doubt as to the propriety of introducing a highly organized and readily decomposed body like milk into such a sink of impurity as the gastro-intestinal system of a typhoid patient.

In all the cases in the series reported, predigested foods were substituted; and I cannot but attribute much of the freedom from tympany, diarrhœa, etc., to this cause. Very little stimulant was needed; in fact, not more than was to be found in one of the beef preparations in the market, which was given in the weaker stages.

In conclusion, I will say that while my eight undoubted cases are too few to afford more than an indication of the truth, the uniformity of the results obtained leads me to believe that in the sulpho-carbolate of zinc we have probably a remedy for typhoid more nearly specific than any heretofore proposed—in that its use is a legitimated deduction from the pathology of the disease.

[The food preparations most used in this series of cases were Carnrick's soluble food, with liquid peptonoids or Rudisch's sarco-peptones; and, when slight stimulation was indicated, Bovinine was added to the preceding. In addition to these, the white of egg was given in the raw state, mixed with cold water and a little pepsin added. In one case Wells and Richardson's lactated food was used.]

APHORISMS ON DISEASES OF CHILDREN.

Compiled and translated by
CHARLES EVERETT WARREN,
A. B., M. D., Harv.

[From the French of E. Bouchut.]

THESE aphorisms are intended as suggestions to recall to mind im-

portant points. They may be compared to a bunch of keys, of slight intrinsic value, yet unlocking the doors of many recesses, in which memory may have stored much knowledge; or they may serve as passwords, an open "sesame" to otherwise inaccessible treasure; or as signboards in wisdom's ways, or as pegs to hang facts on. Their value depends upon a thorough, previous knowledge of the subject gained, at least, through some standard text-book and better through experience. Without this knowledge, they will be as useless as one blade of a pair of scissors, a knife handle without a blade, a wheelbarrow minus the wheel.

An aphorism is a precept or principle expressed in a few words; a short sentence containing some important truth. Three ancient commentators on Hippocrates give the same definition of an aphorism, namely: "A succinct saying, comprehending a complete statement," *i. e.*, A saying, poor in expression, but rich in sentiment. It is synonymous with Apothegm, a short, pithy and instructive saying; a terse remark conveying some important truth; a sententious precept or maxim. It is also synonymous with Axiom, an established principle, which, though not a necessary truth, is universally received. The terse and concise form of an aphorism necessarily imparts to it a dogmatic character, in that it is a statement of opinions, laid down with authority, as indubitably true. Difference of opinion is unavoidable in such conclusions as are deduced from facts capable of different interpretation, or formulated by empiricism. The acceptance of a statement by the majority, and its existence unrefuted for any length of time, should place it beyond cavil, and give it credence with the most incredulous, until positive evidence disproves it.

The aphorisms in the present series, especially those relating to diphtheria, may and doubtless will raise objection and call forth criticism. Bouchut evidently considers the membrane in diphtheria as the *mala malorum*, the *fons et origo malæ*, the *bête noir*. Hence, in aphorism No. 254, he strikes at the root of the disease, thinking that if he destroys the membrane he kills the seed,

as it were, of the disease before it can germinate in the body and develop constitutional symptoms.

The accepted idea concerning diphtheria at the present day attributes to it a general constitutional character, the membrane being simply a local and external manifestation of one of its many symptoms. This being the case, it is manifestly impossible to eradicate it in so easy a way as that stated in the aphorism quoted, unless by some happy constitutional treatment we can corner it, so to speak, in the tonsils, and cut it out with them. The idea is certainly novel, even if its accomplishment is impossible.

This aphorism, like several others whose truth may be doubted, has been translated literally, for the very purpose of calling forth contradiction and criticism, the main purpose in publishing the aphorisms being to furnish a series of concise texts to set the professional mind a' thinking; a series of indirect questions to call forth direct answers; a sort of general index to each man's knowledge, which, however valuable, might be unseen or unheard, if not indicated by that pointer, the index.

The main end in view was to weave a net to catch ideas; a sort of *similia similibus* method of fishing for ideas with ideas for bait. With this intent proofs of the aphorisms have been sent to a number of specialists in diseases of children, with the request that they make any additions, corrections or comments that may suggest themselves. These, properly credited, will be incorporated in the form of extensive notes in the published reprint of the aphorisms.

While but a limited number of the profession can possibly be thus personally addressed, it goes without saying that all contributions from any reader will be thankfully received and duly accredited. Such communications are earnestly solicited.

Charles Everett Dawson, M.D.
51 Union Park, Boston, Mass.

July 5, 1888.

IN GENERAL.

1. Diseases of children resemble those of the adult, in location and name

but differ greatly in form, developments, reaction and termination.

2. Age expresses the quantity and quality of vital force, as the figures on a dial indicate morn, high noon and declining day.

3. Before attaining an independent existence, the new-born child must finish at the breast an existence the first half of which has been passed in the womb of its mother.

4. New-born children have but little power to resist external influences, consequently, a quarter of them die before the end of the first year.

5. New-born children may have, at birth, latent diseases, which do not develop for several days, weeks or even years. These are hereditary diseases.

6. New-born children and infants at the breast are in a condition especially favorable to the development of certain diseases, especially ophthalmia, croup, eclampsia, diarrhoea, eruptive fevers, etc.

7. Disease is simply a "transformed impression;" that is, the manifestation in the body of external influences acting upon the body.

8. During the first infancy, organic lesions are less frequently inflammatory than in the second infancy; suppuration of the tissues is less common, but more malignant.

9. Subacute and chronic forms of disease are less common in the infant than in the adult.

10. During the first infancy, there is no absolute relation of the organic lesions and the intensity of the symptoms.

11. High fever, accompanied with restlessness, cries and convulsions, may disappear within twenty-four hours, leaving no traces or after-effects.

12. The diseases of infancy usually present externally a series of symptoms sufficiently characteristic for their diagnosis.

13. During infancy, a yellowish tinge of the skin, sclerotic and base of the tongue always indicates disease of the liver.

14. Sudden and rapid blanching of the face and lips, with deeply sunken eyes, is always a sign of grave intestinal disorder.

15. Cyanosis, unaccompanied with

fever, is symptomatic of heart disease or the persistence of the foramen ovale.

16. Cyanosis, accompanied by fever and loss of sensation, is a sign of asphyxia, due to croup or bronchitis.

17. Sudden, momentary and intermittent flushing of the face, accompanied with fever, is a sign of acute cerebral disease.

18. Alteration of the features, by paralysis, successively of the eyelids, the nose and muscles of the face, with or without strabismus, indicates an affection of the brain; sometimes only of the facial nerves.

19. Distortion of the features, by great disproportion of the face and cranium, is indicative of chronic hydrocephalus.

20. An infant with fever, whose nostrils dilate and contract visibly, at each respiration, is affected with acute pneumonia.

21. An "aged" countenance, in a young child, is indicative of pulmonary tuberculosis and chronic enteritis.

22. Strabismus, accompanying fever, is indicative of acute meningitis (encephalitis), and will be followed by convulsions.

23. Primary strabismus, in a child otherwise healthy, is simply a localized muscular paralysis.

24. Redness and weeping of the eyes, accompanied with fever, indicates the incubation of measles.

25. An infant who is frightened at or attracted by an imaginary object, striving to escape from it or to grasp it, is threatened with some cerebral affection.

26. An infant, constantly having his hands in his mouth and biting his fingers, is troubled with difficult teething.

27. Children that cannot stand up at the end of two years, and whose superior fontanelle remains open, are rachitic.

28. A child who has rapidly lost his plumpness, whose cheeks are pale, soft and flabby, has had and perhaps still has diarrhoea.

29. The feeble cry of a new-born child indicates a low vital power and imminence of death.

30. A prolonged cry, very strong but intermittent, as a rule, indicates acute hydrocephalus.

31. A muffled, hoarse cry, is indicative of the last stage of croup.

32. A disproportionately large belly, in an infant of one or two years, indicates rachitis or chronic enteritis.

33. Jerky, sighing expiration, indicates acute pneumonia.

34. Inspiration, suddenly arrested at each effort by a convulsive or spasmodic action, indicates acute pleurisy.

35. A short, tremulous and incomplete expiration, followed by a long inspiration, in every eight or ten, indicates acute peritonitis.

36. Short, incomplete and murmuring respiration indicates simple or suppurative meningitis.

37. Deep respiration, occurring at long intervals, indicates delirium.

38. Deep, lateral constriction of the thorax, at each respiratory movement during fever, indicates acute pneumonia.

39. Permanent, lateral flatness of the thorax, with a series of chondro-costal nodes (the rosary), indicates rachitis.

40. At no other epoch in life is the heart so easily impressed and so variable as in infancy.

41. Mental impressions increase the movements of the heart as much as fever.

42. Increase of the movements of the heart, due to fever, is always accompanied by an increase of the body temperature, which differentiates the increase due to nervous impressions.

43. Fever manifests itself by an acceleration of the pulse and an elevation of the body heat.

44. Fever, present or past, leaves upon the tongue of an infant a red "pile," due to the turgescence of the capillaries and papillae, (so-called villous tongue). This is the last trace of the organic movement.

45. An infant having a sad and downcast countenance, peevish, crying easily, ever ready to lie down and sleep, biting his finger nails and lips, shaking his head, and striking his limbs against each other, has a fever.

46. Chills are extremely rare in nursing children.

47. In children, pallor and general coldness of the skin take the place of chills, with shivering, in intermittent fever.

48. Profuse sweating does not occur

in children suffering with intermittent fever; it is generally replaced by simple moisture of the skin.

49. Fever is always noticeably remittent in acute diseases of young children.

50. In chronic diseases of young children fever is generally intermittent.

51. High fever diminishes the quantity of urine, concentrating the solid constituents, rendering it irritating to the urinary passages.

52. Very high fever habitually stops the secretion of tears.

53. The body temperature, measured under the axilla, rises one to three degrees in acute diseases of children, under the exclusive influence of the fever, and not from any particular disease, exactly the same as in the adult.

54. Heat production is proportional to the vital force of the new-born.

55. Heat production dependent upon food and clothing is lost so easily, in weak and feeble children, that death, by cold, often occurs.

56. Heat production is very much lessened when there is induration of the cellular tissue of the new-born.

57. The eye is simply an expansion of the brain, in which one can often perceive, by means of the ophthalmoscope, lesions, which indicate those which are occurring in the brain.

58. The purpose of cerebroscopy is to discover, through the eye, that which is taking place in the cerebro-spinal system.

59. Whenever nervous troubles, paralytic, convulsive, or otherwise, are accompanied by lesions of the pupil, of the retina, or of the choroid, they are dependent upon a lesion of the brain, its meninges, or the spinal cord.

60. Every intracranial obstacle, of such a nature as to hinder the venous blood from entering the cavernous sinuses, causes in the retina certain troubles of circulation, secretion and nutrition, which are of value in diagnosis of certain diseases of the brain.

61. In certain diseases of the brain and of the cord, the great sympathetic exerts an influence upon the circulation of the retina, which produces quite marked lesions, easily ascertained by means of the ophthalmoscope.

62. Brief attacks of suffocation and asphyxia, suddenly occurring, without

fever, ending with very sharp hiccough, indicate phreno-glottic convulsions, (spasm of the glottis).

63. Spasm of the glottis often ceases under the influence of an intercurrent disease.

64. Spasm of the glottis may be cured by change of air.

65. Spasm of the glottis, followed by general convulsions, is fatal.

66. Contraction of the muscles, tetanus of the extremities, without fever, is due to a local affection of the muscular system.

67. Contraction of the extremities, accompanied with trouble of the sensory nerves and fever, is symptomatic of disease of the nerve centres.

68. Contraction, following eclampsia, is seated in the muscles.

69. Contraction of the extremities may lead to atrophy of the muscles, fatty degeneration of these tissues and articular deformities.

70. Contraction of the extremities often disappears under the influence of electricity.

71. Primary paralysis of one or more muscles of the trunk or limbs, accompanied with pain, is usually due to a local affection of the muscular system.

72. Paralysis of one or more muscles, following eclampsia, has its seat in the muscles.

73. Partial or general paralysis, following febrile convulsions, is due to a lesion of the nervous centres or branches.

74. Muscular paralysis of children leads to suppurative or fatty degeneration of the muscles and shortening of the limbs.

75. Any neuroses, whether paralytic, convulsive or spasmodic, may occur as sequelæ during convalescence from acute, inflammatory diseases, virulent or septic.

76. Idiopathic paralysis often occurs, after the cure of an acute disease, in the course of the convalescence.

77. When an acute, inflammatory disease, virulent or septic, has ceased, and a simple muscular or sensory paralysis manifests itself, it is an idiopathic paralysis, independent of any organic alteration of the nerves or of the brain.

78. Typhoid fever, variola, erysipelas,

dysentery, simple angina, bronchitis and pneumonia are sometimes followed by essential paralysis.

79. Of all essential paralyses, developed during convalescence from acute diseases, the most frequent is diphtheritic paralysis.

80. Diphtheritic paralysis often begins at the velum palati and pharynx.

81. Paralysis resulting from diphtheria and other acute diseases appears sometimes in the paraplegic form, sometimes as a general, progressive paralysis, passing from the inferior extremities to the superior and accompanied with amaurosis and deafness.

82. Limited, essential paralysis, is never fatal.

83. Essential paralysis, following an acute disease and involving the muscles of the trunk and the diaphragm, is almost always fatal.

84. Most cases of essential paralysis may be cured, in the course of several months, under the influence of good nutrition and tonics.

85. During the first infancy, hallucinations and convulsions take the place of delirium.

86. In young children, hallucinations are characterized by movements of fear and attempts to ward off or grasp an imaginary object.

87. Convulsions, called eclamptic, are due to a direct or sympathetic disturbance of the nervous functions, primary or secondary.

88. Eclamptic convulsions occur without any appreciable material lesion of the nervous system.

89. Eclampsia is usually hereditary.

90. The first attack of eclampsia predisposes to a second.

91. A convulsion occurring suddenly and of brief duration, not followed by fever, is without danger.

92. Eclampsia occurring during the first infancy and continuing through the second, will become epilepsy.

93. Eclampsia engenders partial paralysis, and this in turn engenders deformity.

94. Convulsions of a violent nature, followed by prolonged coma, but without fever, are suggestive of epilepsy.

95. Convulsions, occurring suddenly and accompanied with fever, are always symptomatic of the beginning of

an eruptive fever, or of pneumonia, and are prognostic of great danger.

96. Initial convulsions, in variola, augur well for the definite termination of the disease.

97. Convulsions terminating an acute or chronic visceral lesion are almost always indicative of a lesion of the brain and its meninges, consequent upon the disease.

98. Eclampsia quite often engenders albuminuria.

99. Convulsions complicating an acute disease are of very grave portent.

100. Convulsions complicating pneumonia are fatal.

101. Fresh air and water sprinkled upon the face may abort an attack of eclampsia; but after the convulsions have commenced they cannot be arrested.

102. Those who pretend to cut short an attack of eclampsia by the aid of drugs, resemble those who by shaking an hour-glass attempt to hasten the inevitable and measured flow of sand. The cause of eclampsia must be ascertained if its return is to be prevented.

103. Tubercular meningitis is a special disease of children; the same is true in a degree of simple meningitis.

104. Tubercular meningitis always occurs in tuberculous or scrofulous children, or the issue of parents tainted with tuberculous or scrofulous lesions of the skin, bone, lymphatics or viscera.

105. Tubercular meningitis announces itself, a long time in advance, by lack of appetite, periods of sadness or anger, dejection, fright, and nocturnal hallucinations.

106. Vomiting, constipation, and high fever, accompanied by short, incomplete, intermittent and sighing respiration, indicate meningitis.

107. Sudden flushing of the countenance, followed by pallor, alternating at short intervals during the fever, indicate approaching convulsions.

108. Fever, accompanied with extreme sensibility of the eyes to light and permanent closure of the eyelids, without ophthalmia, indicates meningitis.

109. Tubercular meningitis, accompanied with acute cries and convulsions, is almost invariably fatal.

110. "Snuffling" is a sign of acute or severe chronic coryza.

111. Coryza in the new born, which produces an obstruction of the nasal fossæ, is often fatal by reason of the difficulty which it presents to nursing.

112. Owing to the extension of its lesions, syphilitic coryza is the most difficult to contend with of any inflammation of the mucous membrane; but in its early stages it is more easily treated.

113. Croup exists when a yellowish, viscid membrane appears, covering the mucous membrane of the larynx.

114. A muffled, hoarse and hollow cry, followed by metallic wheezing, accompanied by fever and shortness of breath, is symptomatic of croup.

115. In croup, an attack of suffocation, asphyxia and death, is imminent, when the cough and voice is suppressed and the respiration is noisy and grating.

116. Croup may be simple, or it may be complicated with scarlatina, more severe in its character, or with diphtheria, and is then rarely curable.

117. There is, in croup, a simple albuminuria, an albuminuria scarlatinosa, and an albuminuria diphtheritica.

118. As long as anæsthesia does not accompany croup, asphyxia is not threatened, and there is no great obstruction to the air, in the air passage, or to aëration of the blood.

119. To open the trachea of a child, suffering with croup, before the appearance of asphyxia, is a useless operation, because it is an attempt to combat a symptom which does not exist.

120. In a case of croup, asphyxia may be apparent, with cyanosis and suffocation, or latent, with no appreciable cyanosis or suffocation; loss of sensation alone, shows imminence of death and the necessity for tracheotomy.

121. Croup that has reached the stage of suffocation and complete anæsthesia, is almost always fatal.

122. There are some cases of croup that are self-limited and others that the physician limits.

123. In the beginning croup ought to be treated by emetics, frequently repeated and in large doses.

124. Croup, accompanied with diphtheritic albuminuria, is usually more severe than other cases.

125. A case of croup that has reached the period of suffocation and anæsthesia, when death threatens, ought to be treated without delay by tracheotomy, (or intubation.)

126. A sudden attack of suffocation, occurring during the night, accompanied with a dry, hoarse wheezing and sonorous cough, characterizes false croup.

127. False croup, very violent in the beginning, diminishes in violence after several hours; while true croup constantly increases in intensity, hour by hour.

128. False croup is characterized by two or three attacks of suffocation, less and less violent, occurring in the course of twenty-four hours.

129. False croup is easily cured by emetics.

130. Moderate fever and a simple cough characterize acute bronchitis.

131. Acute fever, complicated with cough and difficulty of breathing, characterizes severe acute bronchitis, easily running into lobular pneumonia.

132. Chronic cough in children leads to pulmonary phthisis or tuberculosis.

133. Sibilant rales, accompanying cough in the new-born, are of slight consequence.

134. Mucous rales, in young children, are usually of slight importance.

135. A diffuse, subcrepitant rale, in new-born children and children at the breast, always indicates a very severe local affection.

136. Mucous and subcrepitant rales are, in children, the best indication for the use of emetics.

137. Some cases of chronic pulmonary congestion perfectly resemble, in their physical signs, pulmonary tuberculosis of the first degree.

138. Congestion of an asthmatic nature may be easily cured, but true tuberculosis does not succumb so easily to treatment.

139. Chronic pulmonary congestion occurs in infants as well as in adults, and results from an acute congestion, bronchitis, primary or secondary pneumonia, or from pulmonary effusion which has not entirely resolved.

140. A kind of pulmonary effusion of the character of an infiltration, destroying the elasticity of the parenchymatous tissues of the lung, and increasing its density so as to cause sclerosis, consti-

tutes the pathological lesion in chronic pulmonary congestion.

141. While pulmonary congestion may exist alone, without tubercles, and may remain in this state without even becoming tuberculous; yet, on the other hand, it is quite often nothing less than the first stage of phthisis.

142. As there may be chronic glandular hyperemia in children, not followed by tuberculosis, so there may be chronic pulmonary congestion, constituting the sum total of the morbid state.

143. Chronic pulmonary congestion, or induration, should be looked upon with mistrust, since it may be the immediate forerunner of, and origin of, true phthisis.

144. Whatever the nature of pulmonary induration, congestive, phlegmatic, hemorrhagic or tuberculous, the aëration of the blood will be lessened, owing to the difficulty of access of air to the vesicles of the lung; and it will give rise to characteristic signs as determined by percussion and auscultation.

145. Chronic pulmonary congestion, in the scrofulous, necessarily leads to phthisis, but in the plethoric, rheumatic and herpetic, it remains in the indurated state until resolution takes place.

146. Nothing resembles the first stage of pulmonary tuberculosis so much as chronic pulmonary congestion, for the physical signs are similar and the general phenomena the same.

147. The physical signs of pulmonary congestion are, the relative dulness of the chest, weakening of the vesicular murmur, prolongation of the expiratory murmur, some mucous rales and increased pectoriloquy. These signs are also generally regarded as characteristic of tuberculosis.

148. Cough, with or without expectoration, emaciation and general malaise, weakness, or attacks of fever, are the general symptoms of chronic pulmonary congestion.

149. Chronic pulmonary congestion may continue several months or years, yet may eventually be cured, if tuberculosis does not ensue.

150. Pulmonary tuberculosis in children is rarely cured; the greater number of cures claimed by physicians are cases of pulmonary congestion.

[TO BE CONTINUED.]

MEDICO-LEGAL CASES.

By HENRY A. RILEY, Esq.,
New York.

CRIMINAL RESPONSIBILITY.

THE question of responsibility in criminal cases where the plea of insanity is made is one of the unsettled ones between lawyers and physicians. Many physicians—possibly the majority—take the view that responsibility is to be judged by the ability of the will to resist a wrong impulse, while many lawyers, and probably the majority, regard responsibility as depending upon the capacity to distinguish between right and wrong.

Mr. Austin Abbott recently read a paper before the New York Society of Medical Jurisprudence and State Medicine on "The Physiology of the Rogue," and he presented with a good deal of force the general view of lawyers. Among other things he said: "I do not think that medical men appreciate generally the power which the existence of the law and its penal sanctions exercise on the lawless in aiding the control of what would otherwise be uncontrollable impulse.

"If those medical men who are the strongest advocates of treating irresistible impulse as a defense were put in charge of the administration of justice in this community, under full responsibility to preserve peace and order, and with power to do whatever was necessary for that end, through the police force and the judicial and penal establishments, it is safe to predict that they would not begin by setting free from arrest every accused person who convinced them that they acted in a condition of unconsciousness or without the power of controlling himself."

LAWYERS ADVERTISING FOR DIVORCE BUSINESS.

The police power of the State is a matter for frequent interpretation in the courts, and the tendency is to extend the control of the law over questions of health and morals.

This is the basis upon which legislation against nuisances is generally defended against the charge of being unconstitutional.

An instance of the way in which this power is invoked to remedy abuses is

shown in a bill pending in the New York Legislature to prohibit lawyers from advertising for divorce business. Legal practice of this kind is generally avoided by honorable practitioners, and those few who are so anxious for it as to advertise are actuated only by the most sordid pecuniary motives. We think the bill a constitutional one and regard it as in the interests of public morality.

SHOOTING TRESPASSING ANIMALS NOT CRIMINAL.

The Mississippi Supreme Court has recently decided in a criminal action that a person was not guilty of cruelty to animals, who shot a number of hogs after vainly attempting to drive them from his premises. The court stated that he might be liable for damages on account of the shooting, but that the act was not a criminal one.

UNDERTAKING NOT A NUISANCE.

An interesting case has just been decided in the New Jersey Chancery Court on the special question whether an undertaker's establishment in the city of Camden was a nuisance. The broader question, whether or not an undertaker's business was a nuisance *per se* was also involved, and the court investigated the matter very thoroughly and came to the conclusion that the business was not only absolutely necessary, but could not, in any reasonable sense, be called a nuisance pure and simple.

It was claimed that unhealthy odors came from the establishment, and that there was danger of contagion in the case of persons dying from infectious diseases. On this point, the court said:

"In the first place, admitting the possibility of danger lurking in every box where the person buried therefrom has died of a contagious disease, what is the duty of the court? Should the court say that such business, however lawful, cannot be carried on in a populous part of the city? I am not prepared to assent to that doctrine. It is quite clear to my mind that this, like many other occupations, may be conducted so as to be a nuisance. For example, a grocer might allow his vegetables to decay in such quantities and in such localities upon his premises as to do infinite harm to his neighbors, and sub-

ject him to the penalties of the law, or to the restraint of a court of equity. The same may be said of the vendor of meats, so negligent might he be as to scatter disease and death to multitudes. But because these things are possible, or may occasionally happen, it is not pretended for a moment that it is unlawful to carry on the grocery business, or to vend meats in populous parts of our cities.

"It seems to me that the same reasoning may be applied with great certainty to the business of undertaking."

The decision was therefore that the business was not improperly conducted and could not be enjoined. It was also decided on general principles that undertaker's establishments were not in themselves nuisances under any and all circumstances.

It appeared that the plaintiff was an old gentleman seventy-two years of age, and that his residence, which adjoined the undertaker's, was rendered unpleasant to live in by the frequent bringing in and taking out of dead bodies. The court decided, however, that it could not step in to make his home a pleasant one. The undertaker had some rights and should be protected as well as other useful members of the society.

BILL AFFECTING NOSTRUMS.

The Legislature of New York has been considering a bill requiring the manufacturers of patent medicines to print upon the labels a statement of the ingredients used in the preparations. This bill has naturally aroused intense opposition on the part of those engaged in the business, and some interesting statistics were presented showing the extent and importance of the interests involved. It was stated that in the State of New York there were 108 manufacturers of patent medicines employing a capital of \$3,512,430, and producing yearly medicines worth \$4,339,178. In the whole of the United States there are 568 manufacturers with \$10,620,880 capital, and producing yearly a product valued at \$14,682,412.

It was claimed that this great business would be ruined, if it were necessary to print the names of the various ingredients in the different preparations.

CHURCH BELLS.

In a recent Massachusetts case it was decided that a person who had been sun-struck and was peculiarly sensitive to the noise caused by a church-bell, situated just opposite his house in a thickly populated section, could not maintain an action for the ringing of the bell, unless he showed express malice on the part of the person in charge of the church, or that the ringing was objectionable to persons of ordinary health and strength.

LIABILITY OF DRUGGISTS FOR CLERKS' MISTAKES.

The Supreme Court of Ohio has recently reiterated the general rule of the liability of druggists for negligence in putting up medicines. In this case the druggist clerk, when asked for "oil of sweet almonds," carelessly gave the "oil of bitter almonds," and the plaintiff's wife died almost immediately after taking the poison. There was nothing on the bottle to indicate that it was a virulent poison, and it was clear in the evidence that there was gross negligence on the part of the clerk. The druggist denied his personal liability for his clerk's mistake, but at the trial the court decided against him, and the Supreme Court affirmed the decision. This ruling is fully in accord with that of the courts of other States, and probably no tribunal would relieve a druggist under similar circumstances.

SUIT AGAINST A DENTIST.

A New York dentist has lately been sued by a lady to recover \$50, which she paid in advance, under the agreement that he was to furnish her a satisfactory plate, and then a further sum of \$75 was to be paid. There was a difference of opinion as to the satisfactory character of the plate, and the lady refused to receive it, and brought suit to recover the amount paid. A judgment was rendered in her favor, but there seems considerable doubt whether she was justly entitled to a verdict.

TRANSLATIONS.

ANTIPIRIN, ACETANILIDE AND SOLANINE COMPARED.—*Sarda*, in the *Bull. Gén. de Thér.*, arrives at the following conclusions: All three are excellent nervines. Antipyrin is best in acute

rheumatism, migraine, recent neuralgias and paroxysmal pains.

Antipyrin and acetanilide act about equally well in chronic rheumatism and in lightning ataxic pains.

Acetanilide is best in old neuralgias and to combat motor excitation.

Solanine is preferable in old neuralgias with neuritis. It calms the gastric distress and lightning pains of ataxy. It very rapidly removes the tremor of multiple sclerosis as well as exaggeration of the reflexes and epileptoid trepidation. It acts more surely when the disorder of sensation or motion has a distinct anatomical basis.

SALICYLATE OF BISMUTH IN THE INTES-TINAL MALADIES OF INFANTS.—*Ehring* has had recourse, in a large number of infants suffering with digestive troubles, to the salicylate of bismuth. This substance unites the astringency of bismuth to the antiseptic properties of salicylic acid. It appears theoretically indicated in gastro-intestinal catarrhs which result in abnormal fermentation of ingested matters. The salt has been found most useful when conjoined with lavage of the stomach or bowel.

Lavage is now practised on infants at a tender age without inconvenience.

The following formula has been found useful:

R Bismuth salicylat.....gr. lx-lxxv
Glycerini.....3 ijs-3 v
Aque.....3 ij

M.—A teaspoonful to a tablespoonful every two hours, according to the age. Sometimes a little red wine is added.

The drug should never be given in powder.—*Schmidt's Jahrbuch*.

SOAP FOR SURGEON'S USE.—

R Ol. amygdalæ dulcis....parts lxxij
Soda lye....." xxiv
Potash lye....." xij
Zinc. sulphocarbonate...." ij
Essences of roses....." 9½

Mix the oil, the lyes and the solution of sulphocarbonate by successive portions, gently stirring until a mixture is obtained. Keep for some days at a temperature of 20°. Continue to agitate the mass until it assumes the consistence of a soft paste.

—*La Normandie Méd.*

THE PHILADELPHIA CLINICS.

MEDICO-CHIRURGICAL HOSPITAL.

CARBUNCLE.—In the treatment of carbuncle, Stubbs thinks the more rational way is to evacuate any pus contents as evidenced by fluctuation, by a thorough crucial incision, and then to swab the inside of the carbuncle vigorously with tincture of iodine, full strength, afterwards poulticing with flaxseed and using the carbolized wash. While granting that the method of using the two per cent. carbolic acid spray, as advised by Brouillard, of Paris, may be very useful in mitigating the pain or even in aborting an oncoming carbuncle, it does not seem to him wise to allow any poisonous matter to remain. In his experience, quick and excellent cures result.

ORCHITIS.—Stubbs' plan of treatment is threefold, namely: first, a cooling regimen and rest in bed; second, the enlarged testicle to be painted twice a day with full strength of tincture of iodine, and then to be covered entirely with, first, a thick wool or Canton flannel compress wrung out in hot water; second, with a dry woollen compress and then with oiled silk, the testicles in the meanwhile to be properly supported.

This treatment can be modified according to the nature of the cause of the trouble, but has been often proved efficient and pleasant by Dr. Stubbs.

UNIVERSITY HOSPITAL.

A DOUBTFUL CASE.—An interesting incident occurred at the University the other day; doubly interesting because it showed that even to the most celebrated and skilled diagnostician a case may be utterly perplexing.

A country physician brought to Dr. Goodell a woman to be operated on for an abdominal tumor. Examination caused so much pain that a careful one could not be made prior to the administration of ether. When this had been done preparatory to operating, Goodell made a thorough examination, and the more he examined, the more he was inclined to the belief that he had to deal with a pregnancy of some sort, probably extra-uterine. This, in spite of the fact that the woman had given birth to her last child thirteen years ago, and had strenuously denied that she had

been exposed to the possibility of becoming pregnant.

Being unable to reach a conclusion, he made an exploratory incision along the linea alba, for diagnostic purposes.

The possibilities were then found to lie between these three: tumor, uterus bicornis with one horn pregnant, and extra-uterine pregnancy, the likelihood lying between the latter two. Without such manipulation as would risk producing abortion, if a fetus were present, Goodell could not arrive at a certainty. So he decided to close the incision and wait for developments, saying that if it were a tubal pregnancy and had gone so long without bursting—three months—it would doubtless be safe to wait some time longer; meanwhile keeping the patient in the hospital under observation.

RESECTION OF KNEE-JOINT.—(Agnew.) Here is a young man who has suffered from pain and annoyance in the right knee-joint. Two years ago he was struck on the knee, and since that time the pain has grown much worse, the swelling has greatly increased; and he has altogether so much trouble that he asks me to amputate his leg above the knee. I have not promised to do this; nor shall I do it, if I can save the leg by resecting the joint. Of the different ways of exposing the joint, I prefer to turn up a lid-like flap from below, as in amputation. We now saw off the opposing ends of the femur and the tibia, remove the patella and all the diseased tissues and finally fasten the bones together with wire sutures. Drainage tubes are placed in the most dependent portions of the wound, the soft parts are brought together, and we hope to have good union and a serviceable limb.

PHILADELPHIA HOSPITAL.

UNUNITED FRACTURE OF THE FEMUR. (Deaver).—The commonest cause of an ununited fracture is meddlesome surgery, especially too frequent dressing; and also a failure on the part of the surgeon to overcome thoroughly the contraction of the quadriceps extensor femoris.

The plaster-of-Paris bandage for a fracture should immobilize not only the fractured part, but also the joint immediately above, and the joint below.

The case operated on was that of a woman who had met with a transverse fracture of the patella, the result of a fall on the ice last December.

As the opening of the largest joint in the body is fraught with much danger, both to the joint and to the patient, the greatest antiseptic precautions were taken. The evening before the operation, the limb was washed with soap and water, with turpentine, with alcohol, with ether, and finally, was enveloped in towels saturated with bichloride (1 : 2000), and left in them till the time of the operation. Before beginning the operation, Dr. Deaver washed his hands in soap and water, in alcohol, and in bichloride (1 : 2000).

A vertical incision, about three inches long, was made in the median line, and the skin dissected to either side, exposing the two fragments of the patella. The cicatricial tissue which had formed between the fragments, was entirely removed, and the free surface was freshened with saw and forceps, till the cancellous structure was exposed. Holes were now drilled in each fragment, beginning at the upper surface and drilling obliquely to the junction of the cancellous tissue with the cartilage below. Silver-wire sutures, about a line in diameter, were passed through, the fragments drawn tightly together, and after making a twist or two, the ends of the wire were hammered down close to the bone, as Dr. Deaver believes this to be the best method of disposing of them.

The wound was now closed with wire sutures, dressed antiseptically, and placed in an Ashhurst knee-excision splint; and this again in a fracture-box.

May 12. The patient is doing well.

TREPHINING FOR EPILEPSY.—The case was that of a man of about 35, who had been violently struck on the head with an axe handle, when he was six years of age. Ever since that time he had been subject to epileptiform convulsions.

During a consultation the day before, with regard to the propriety of trephining, pressure was made by a finger on the circular depression in his skull: and this was at once followed by a convulsion. It was then decided to trephine.

Before the operation, Dr. Charles K. Mills explained the neurological aspect of the trouble: As soon as pressure was made yesterday, the head was jerked violently to the left and held in that position, through spasm of the muscles of the neck. The left hand and arm stiffened in a semi-flexed position, and then the whole arm went into large movements. The leg on the same side flexed on the thigh, at an angle of 120° , and acted like the arm.

The right leg and arm were extended and stiff, but not so stiff as the left. Now this depression is on the left side of the head directly over the fissure of Rolando, along either side of which we have the center of motion for that half the body.

Is this Dural or Jacksonian epilepsy? In other words, is it caused by direct pressure on the brain; or is it a reflex phenomenon, produced either by spicula of bone irritating the dura mater, or from nerves caught in a cicatrix of the dura? You know that the dura mater receives its sensory supply from the fifth pair of nerves; and experiments have shown that irritation of the branches of the fifth produce reflex spasms, which radiate down the cord, principally on the same side.

Now, let us point to some of the differences in the manifestations of dural and of Jacksonian epilepsy:

In dural, the spasm will be on the same side, or on both; but at any rate, more marked on the same side. It will be tonic, with large movements involving whole limbs.

In Jacksonian, if the lesion is of limited area, the spasm will be on the opposite side, clonic or tonic; but more likely definitely clonic and special, and not involving whole limbs.

In dural, we have unconsciousness; not so likely in Jacksonian.

In dural, there is quick conjugal deviation of the head; not customary in Jacksonian.

After putting an Esmarch bandage around the head, just above the line of the eyebrows, Dr. Steinbach began the operation.

A large flap of an ellipsoidal shape was turned up, and with a trephine a button of bone, about one inch and a half in diameter, was removed. No

spicula were found, but there was a small cicatrix in the dura mater. After making the wound thoroughly aseptic, the button of bone was replaced, cat-gut laid about its edges and extending out of the wound for drainage, and the wound was then closed up.

There were present at the operation, Drs. W. W. Keen, Wharton Sinkler, Charles K. Mills and Geo. McClellan. The result will be told at another time.

ARTIFICIAL FEEDING OF NEW-BORN CHILDREN.—In preparing cow's milk for a new-born child, Stryker says the proper proportion is three parts of water to one of milk. About two ounces should be offered to the child every two hours. Into this put a pinch of salt, a little sugar, and a teaspoonful of lime-water. In the summer the milk gotten in the morning should be brought to a boil, and then put away in the refrigerator; preparing just enough at one time for that meal. Some one should hold the bottle for the baby, so that neither is it deluged with milk from a bottle upside down, nor does it suck air out of an empty one.

AMYLOID DEGENERATION. (*Bruen*).—Prolonged suppuration in any part of the body is likely to result in amyloid infiltration of the blood-vessels and the abdominal viscera, especially the liver. He exhibited several of the viscera from a case that died of pneumo-pyothorax. Two years ago the case was operated on for a pleural abscess, two of the ribs having been resected in the hope that the walls of the abscess might close upon one another and result in healing. The object aimed at was only partially gained; but the patient was doomed at any rate from phthisis.

Iodine painted on the liver and the other viscera gave a rich mahogany color, showing well-marked amyloid infiltration.

A NEW SURGICAL DRESSING.—Hewetson, in the *Lancet*, recommends China grass as a surgical dressing. It is reduced to a soft, silky wool, and treated with salicylic acid. It has the advantages of being cheap and highly absorbent.

Another new recommendation from England is that of infant's diapers made of wood wool. They are antiseptic, absorbent and unirritating; and are to be used but once and then burnt.

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, JULY 16, 1888.

EDITORIAL.

THE CAMP CURE.

A FEW years ago public attention was directed to this subject by an article in the secular press, written by one of Philadelphia's most eminent physicians.

To this and similar publications is to be attributed the multiplication of "health resorts" which has occurred during recent years.

Sufficient time has elapsed since the camp cure came into vogue to allow of an opinion as to its worth as a therapeutic agent. As a means of treating incipient disorders of the nervous system its value is very great; as a preventive it is still greater. In many cases of confirmed neurotic disorders, we are convinced that better results can be obtained from it than from any other method of treatment. In all the great groups of diseases which have their true foundation in the over-work necessitated by modern life, there is no other remedy to compete with this. A thoughtful man remarks that consumption is but another name for death—death prolonged over a longer period than usual—but really a gradual extinction of vitality. In many other cases the same thing may be said. The soil is exhausted.

But in many instances the camp cure fails because it is not taken in sufficient doses. The patient returns after a week or two, refreshed, relieved, but in a short time his symptoms return. It is a remarkable fact that the Mosaic

institutions contain much that to our eyes seems better fitted for modern times than for those in which these laws were promulgated. We know that there is a good reason for the avoidance of pork; a reason which could not have been known then. We have found that the observance of the Sabbath as a day of rest is necessary to the health, and that more and better work can be done in the remaining six days if the Sabbath be kept, not religiously, but physiologically. But surely Moses must have had in his mind, not the pastoral Hebrews of his day, but the brain-workers of our epoch, when he instituted the Sabbatical Year, one year of rest in seven. Here we have the wisest of remedies. Instead of a week or two, which simply gives renewed strength for the time being, we have here a means of counteracting the effects of persistent over-work. One could afford to throw his whole energies into his work without fear of injury, if every seventh year he were to return to a state of nature, and allow his mind to lie fallow. This period would allow time for reparative processes to be completed. Too often the vacation is only sufficient to interrupt the processes of disease, without allowing time for full restoration to health.

The interruption to one's business is the great obstacle to the adoption of such a plan; and herein also is shown the wisdom of the Mosaic system, for, being enforced by a general legislative enactment, applicable to the entire nation, business accommodated itself to the interruption, as it does now to the Sabbath. While it is not possible to make such an arrangement now, still there are many individual cases in which the advice of the physician can induce patients to take a period of rest sufficient in kind and in extent to accomplish lasting therapeutic results.

THE NORRISTOWN ASYLUM MANAGEMENT.

ONE of the most interesting discussions in the recent meeting of the State Medical Society was that upon Dr. Hiram Corson's resolution recommending that the plans pursued at the Norristown Asylum for the Insane be put in force in the other State Asylums. In brief, the proposal is that the financial management shall be vested in the trustees, while the superintendent shall confine his attention solely to the treatment of the inmates.

To one who is unfamiliar with the practical workings of an insane asylum, there may be an apparent plausibility about such a proposition. But we will venture the assertion that there are few physicians who have served in an asylum, who would be willing to accept a superintendency under such conditions. Is it at this late day necessary to say that for the proper management of any institution there must be one responsible head? With one hand to clasp the purse, and another to decide the needs of the patient, how is it possible that there should be no friction, unless one become the tool of the other? And if that become the case, the division of headship ceases.

The circumstances at Norristown are peculiar. An unusual number of cases is aggregated there. The treatment of the women is in the hands of female physicians, whose unfitness to regulate the financial affairs of so large an institution is presumably the true reason for vesting the latter in the trustees.

The first step to be taken before attempting to force this unnatural method upon other hospitals, whose superintendents have already shown their financial ability by years of good management, is to show that better results are obtained in the Norristown Asylum.

We doubt whether this can be done. There are too many patients together for good work, and the proper remedy is not in lessening the authority of the physicians, but in reducing the number of patients. Where fifteen hundred of these unfortunates are brought together the chances for neglect are multiplied.

The regulation of the internal affairs, the procuring of extra diet and appliances, the control of the nursing, the exercise, employment and amusement of the inmates, must be in the hands of the physician. We would not undertake for a day the heavy responsibility of caring for disordered intellects without absolute authority over every employee in the place. We would demand absolutely the right to choose proper assistants, and to supervise their work, and not run the risk of having an incompetent or immoral man forced upon us by a board. Unless a man can be trusted with such absolute authority, he is not the man to be superintendent of an insane asylum.

It would be interesting to know how the ratio of cures in the Norristown Asylum compares with that obtained in other institutions, and also how many cures have been due to the treatment of diseases peculiar to women.

The success which has been obtained is however due to the remarkable ability of Dr. Bennett, and not to the management being in the hands of the trustees.

"AN ADVANCE IN MEDICAL EDUCATION."

THERE are certain limitations to be observed in the writing of papers for publication, and among these one may assuredly say that the statements made must be in accordance with the truth. In some matters ignorance may be excusable, but when that lack of knowledge results in casting unmerited

obloquy upon persons or institutions, the plea of ignorance is not valid. When allegations are made which injure the reputation of others, it is no excuse to say that the author did not know he was mistaken; for he had no right to make such statements unless he knew them to be true.

These remarks apply to an editorial which appeared in the *Philadelphia Medical News* on June 16th. Had the writer, who stated that only three colleges this side of the Ohio had adopted the three years' obligatory course, been a little more conversant with his subject, he would not have ventured such an assertion. But little research was needed to show that other colleges had taken this step, and one at least did so before the University of Pennsylvania.

In 1869, the Woman's Medical College of this city instituted a three years' graded course, which was made obligatory in 1880; and in 1881 established a fourth year's course, not, however, compulsory.

The Medical Department of Niagara University has maintained a three years' course since its organization, in 1883. The Medico-Chirurgical College of Philadelphia was organized with a three years' obligatory course, in 1881. In the annual announcement for 1887-8, owing to a strong pressure which was brought to bear upon the faculty for the better recognition of the rights of preceptors, a modification was made by which the student was allowed to spend the first year with his preceptor. Syllabi were furnished by the college, to direct this year's studies. If the student then succeeded in passing the examinations of the first year, he was admitted to the next class. A year's trial showed that this plan was defective, in that the student was compelled to crowd the practical work which should be done in the

first year into the remainder of the course; and these students were unable to keep up with their classes without greater exertions than were deemed wise by the faculty. Accordingly, this feature has been dropped, and the Medico-Chirurgical College stands squarely on the basis of a three-course school, and, with the exception here detailed, has done so since its organization. This year a fourth course has been added to the curriculum; not obligatory, as yet. That these facts should not be known to a cotemporary in our own city argues a degree of purblindness or of prejudice which is not pleasant to contemplate.

MEDICAL LEGISLATION.

THE Committee on Medical Legislation, after making an encouraging report at the last meeting of our State Medical Society, was continued. The bill, which is part of the work of the committee, has been printed several times in the transactions, and is supposed to represent the sentiments of the profession of the State. That there is need for further legislation no one at all acquainted with the situation can have any doubt; but there is a question which underlies all legislation in which the profession is interested that may be asked—should there be any recognition, either *direct* or *indirect*, of the so-called systems of practice, in a statute? The registration act makes no reference to them, and we do not think that a statute providing for a State Board of Medical Examiners and Licensers should do so. The *indirect* method of recognition which has been adopted is even more objectionable than the *direct*. Either method necessarily perpetuates the evils which we would gladly get rid of. There is but one way to escape this recognition, and we shall merely state it: Allow the Governor to select and appoint the members of the board, and require the board to examine applicants on such branches of study, professional and literary, as may be unanimously agreed upon from year to year at a meeting of the board.

R. L. S.

It looks as if the standard of the British licensing bodies would bear considerable elevation without detriment to the public welfare. The *British Medical Journal* records a case in which a chemist dispensed five grains of strychnine in a single dose, with fatal effect. This was upon the verbal prescription of a supposed medical student, who, however, says his order was for five drops of liquor strychniæ. The chemist acknowledges that he knew he was putting up five grains of strychnine, but "allowed his judgment to be overweighted by that of the supposed medical man!"

ALUMNAE ASSOCIATION OF THE WOMAN'S MEDICAL COL- LEGE OF THE NEW YORK IN- FIRMARY.

Meeting held May 29, the President, Dr. Mary T. Bissell, in the chair.

Dr. Gertrude B. Kelly presented the history of a case of

ACUTE ARTICULAR RHEUMATISM COM- PLICATING THE PUERPERAL STATE.

The patient was a multipara; the case one of breech presentation. The membrane had been prematurely ruptured at 11 A. M. Dilatation had been completed and the breech born at 8.45 P. M. Contractions had then ceased and the head had been delivered by expression. The child was born alive, but did not cry for an hour, and died at the end of twenty-seven hours.

The uterus contracted well, but one hour after labor the pulse was 100, the patient felt chilly and her face was flushed. On the morning of the second day the temperature was 100.8° and the pulse 100. The patient complained of pain in the right hypochondrium and of epigastric distress. In the evening the temperature was 102.8° and the pulse 104. The face was then of a bluish tint, almost apoplecticiform in appearance. The pain and feeling of weight in the epigastrium continued and a dose of calomel was given. There was no pelvic tenderness and the flow was normal. On the morning of the third day the temperature was 100.8°. The tongue was dry and brown, and there was a

markedly yellow tinge to the skin, but the patient felt better. On the morning of the fourth day the temperature was 101.4° and the pulse 88. In the evening the temperature was 103° and the pulse 88. Still there was no tenderness about the uterus and the flow was normal. Pain in the pubic symphysis and in the right elbow now commenced to be complained of. On the morning of the fifth day the temperature was 101.4° and there was swelling of the right wrist. The patient was ordered sod. salicylate grs. x every 2h., but only two doses were taken, because the patient thought that "it stopped the flow." In the evening the temperature was 99.8°, perspiration was profuse, and there was not so much pain, but the patient was restless. Following one drachm of the tincture of hyoscyamus the patient was delirious. She had previously taken this dose with good effect. On the morning of the sixth day the patient was rational and was taking nourishment well. The temperature was 101.4°. There was now swelling of left elbow and wrist, but the pain was less. After a fairly comfortable day the patient had at 3.45 commenced to talk incoherently and shortly after had died. Embolus was considered the cause of death. No signs of heart implication had been previously discovered. An autopsy was not allowed.

DISCUSSION.

Dr. Elizabeth Cushier favored rather the diagnosis of obscure blood poisoning in this case. She had seen cases terminate fatally without local pelvic symptoms, and in which on autopsy, no pelvic lesions were discovered with the exception of small collections of pus in the lymph reservoirs situated on the sides of the uterus beneath the broad ligaments. In one case which she had seen there had been scarcely a trace of peritonitis, and the only changes besides the lymphangitis referred to were a softening of the liver and spleen, and the dark and semicoagulable condition of the blood. There was absence of local pelvic symptoms, also, in some cases where the patient, after having done apparently well for a few days, would have a violent chill and high

fever lasting with more or less marked remissions for a number of days, then passing off, and the patient making a rapid and complete recovery. In two such cases seen by the speaker there was complete absence of local symptoms and the diagnosis of sepsis would only be made by rigid exclusion. In one such case the temperature had risen to 107° , and there was furious delirium. This temperature had been controlled by cold applications, and there had been no further elevation.

The joint affection in the case presented by Dr. Kelly, if taken in connection with the delirium, would point to septic rather than rheumatic arthritis, as the cerebral symptoms of acute rheumatism are usually attended or preceded by excessive fever, while in septic poisoning, on the contrary, hyperpyrexia does not necessarily accompany such disturbances.

Dr. Emma Ward Edwards thought that the implication of the joints was too early to be referred to puerperal infection. The joints had been affected upon the fourth day, while the fever had been immediate.

Dr. Cushier replied that the poison might have gained access before the child's birth, and in that way have gained time for its work.

Dr. Sarah E. Post suggested that pyosalpinx would furnish such a focus of infective material. Obstetricians were looking toward these tubal collections for the origin of obscure cases of puerperal disease. In this case the head had been delivered by expression. If a tubal collection had existed, it might at the same time have been emptied, and passing over the placental surface of the uterus before contraction, have been taken directly into the blood. Immediate chill and rise of temperature would be under such circumstances thus easily explained. Puerperal infection usually proceeded by the lymphatics. Where the blood current was the channel for its introduction, an altered type of development and speedier systemic involvement would be inferred.

Dr. Virginia Davis, resident physician at the N. Y. Infant Asylum, referred to three cases of joint affection occurring during the puerperal period.

In one case the attack had occurred three weeks after delivery; in another two and one-half weeks, and, in the other, four. The history had been irregular and the attacks had not been promptly limited by antirheumatic treatment, yet the patients had been up and about previous to the attack, there had been no pain, high temperature, nor any local pelvic symptoms. A diagnosis of septic infection had been made in all of these cases, but the question of rheumatism was, she thought, pertinent. In one of the cases a previous history of rheumatism was obtained.

Dr. Kelly closed the discussion. She still held the opinion that the rise of temperature and the joint affection occurred too early for puerperal pyæmia. In all of the cases which had been referred to a longer interval had elapsed between the delivery and the development of these symptoms.

Dr. Emma Ward Edwards followed with a paper upon

*THE FREQUENCY OF BACKWARD DIS-
PLACEMENTS OF THE UTERUS
AFTER PARTURITION.*

In her earlier practice she had encouraged patients wearing pessaries for backward displacements to hope that after pregnancy they would be cured. She had however been disappointed, having found that in all cases the old malposition was renewed. In this statement she included both flexions and versions. In the reader's experience all backward displacements of the uterus tended to return after delivery. The curability of the condition was however increased. If supported by tampons or a pessary during the first two or three months after delivery, a permanent cure would usually result. The theory of cure lay in a shortening of the ligaments by the processes of involution. Backward displacements in the virgin and in the sterile married woman were on the other hand practically incurable by pessaries. The future of Alexander's operation was therefore eagerly watched. It could not be denied that shortening of the round ligaments was the most important indication to be met in the treatment of these cases.

DISCUSSION.

Dr. Grace Peckham referred to a

case in which birth at term had been preceded by five miscarriages due probably to the malposition of the uterus. In this case the malposition had returned after delivery. The special cause for the displacement would in any case probably determine its recurrence.

Dr. Post referred to two cases in which posterior displacement had seemed to prevent conception and pregnancy had occurred while wearing a pessary. In both of these cases the displacement had returned.

Dr. Cushier was sorry to say that she had had a large experience similar to that of which Dr. Edwards had complained. She knew of no case in which backward displacement existing previous to pregnancy had not returned. In regard to early treatment, she thought that while careful attention should be paid to the replacing of the uterus as soon after parturition as it was discovered, equal care should be taken that the involution of the vagina was not interfered with by large pessaries. The frequent lifting of the uterus, the Sim's position or a well adjusted Cutter's pessary would, she thought, prove most efficient. Later the intravaginal pessary could be resorted to.

The speaker did not think that backward displacements of the uterus were a frequent cause for sterility, for while she had corrected the displacement in many cases in which it had given rise to repeated abortions, she had yet to see a case of simple retroversion with sterility which was overcome by the replacement of the uterus.

In regard to shortening the round ligaments, her experience had been too limited to be of value. She had operated six times. In three cases the result had been satisfactory; in one a subsequent operation upon the vagina was resorted to as the shortening of the ligaments did not prevent the sinking of the uterus; in another the patient was obliged to continue the wearing of her pessary.

In one case the operation was done subsequent to a Battey's operation. The round ligaments were found in this case so attenuated as not to bear traction, and relief was given by drawing

the cervix backward and attaching its posterior lip to the posterior vaginal wall.

Even where pessaries were worn with comfort, Alexander's operation would be welcomed as an escape from the doom of wearing them, as was in some cases necessary for a life time.

Dr. Sarah J. McNutt made some remarks upon

*THE FREQUENCY OF NEPHRITIS AS A
COMPLICATION OF INSTANTIAL
CATARRH.*

Where stupor or other head symptoms developed in the course of intestinal catarrh the urine should be carefully watched. Scanty urine would often be found loaded with albumen and casts.

Dr. Grace Peckham presented a photograph showing the restoration of the parts in a case of the tumor of the clitoris upon which she had operated one year ago.

The meeting adjourned.

LETTER FROM PARIS.

COD-LIVER OIL.—*Oleum morrhue* has such a specific action in scrofula, chronic rheumatism, phthisis and a host of other troubles, that to praise it would be an old story, and without it we should be bereft of one of our strongest means of curing disease. Its importance is such that we need no excuse in making some remarks on a late lecture by Professor Lépine of Lyons, upon "cod-liver oil and other fatty substances, partly saponified." It must be admitted that this is *par excellence* our best fatty food, and that it is absorbed better than other fats, and its greatest value lies therein, and is not owing to the fact that it contains iodine, phosphorus and sulphur. We can readily pass into the economy any of these substances without using cod oil.

Berthé made a series of experiments lately in which he gave a man a regular regimen, with a measured dose of various oils, and carefully measured the quantity of matters that escaped absorption; that is to say, the quantity of fatty matters found in the feces. From these studies it is proved that the absorption of oils takes place in the following order: First and best, brown cod-liver oil, next the lighter

sort, then butter and lastly the vegetable oils. This, then, explains the clinical fact that the brown oil is better absorbed than the white, which is so much better in taste.

Why is this so? It has been said that the brown oil forms an emulsion with much finer and smaller globules than the white, which can be readily seen by the microscope. This is true, but it is not an explanation. *In vitro*, when we wish to make an emulsion, we must beat it up, but the peristaltic motion of the intestines cannot be compared to that.

What really happens then is this: If we put into a watch glass containing a solution of some alkaline substance, a single drop of cod-liver oil, we can see, with a weak magnifying glass, that a white zone of molecules has formed at the periphery, consisting of small drops that have become detached from the principal drop, and have become saponified in doing so and give rise to little whirlpools which divide up the fatty matter into millions of little globules, each covered with a slight skin of soap, that prevents their reuniting. This is an emulsion, but to make a success of it, it must contain a certain proportion of fatty acids. All this is better done in the intestine under the influence of the pancreatic juice and the bile.

But the fact that a quantity of acid is needed in certain oils, explains why the white oil is not so well absorbed as the brown. The white oil has only four per cent. of oleic acid, while the brown contains from six to eleven per cent. Buchheim was the first to see the importance of the fatty acids in cod-liver oils and did not hesitate to propose the administration of them alone.

LIPANINE.

This brings us to the most important and new part of our subject, that is, the administration of oils that have been partly saponified. Under the name of *Lipanine* (to fatten) a product is now being used in the hospital services here, that is producing some wonderful results. It is supposed to be an olive oil that by a patent process has been partly saponified and some six per cent. of its fatty acid separated from the glycerine. It would seem as though this is the proper direction for

our efforts to obtain an oil that will be readily absorbed and be pure. It seems certain that the natural products, such as our old and favorite cod-liver oil, will be dethroned by some of the newer and let us hope better, *saponified oils*. Just as art makes us bread that is better than flour, and wine that is better than grapes for nutrition, so we may hope to ameliorate cod-liver oil by the chemist's art; and the substitution of saponified oils for cod oil in patients who have a deficient pancreatic juice is as logical as any form of alimentative can be made.

One of the great difficulties is to prevent the new saponified oils from turning rancid. Professor Lepine, aided by M. Fournié, has invented a new substance that appears to fill the bill, but it is yet too new to establish its real value. It will only be after a careful series of trials on phthisical patients that we can give its therapeutic value. In the meantime here is how it is made: A quantity of butter is taken, melted and washed first with an alkaline solution, which takes out of it the casein, serum and the volatile fatty acids. It is then mixed with five per cent. of pure fatty acids, which are obtained in this manner: A certain quantity of butter is saponified, and the substance obtained is decomposed by an acid, at a low temperature and kept from the air by operating in a current of carbonic acid, thus giving a product that does not turn rancid; after cooling, the fatty acid obtained is washed, and mixed with the purified butter as above. It has no taste or smell, looking like melted butter as used on the dining table as sauce, and of course it can be mixed with any quantity of iodine, etc., as wished. Much is hoped from these forms of improved oils in the treatment of phthisis, and we trust we shall be able to report upon them again before long, and say that good results have been obtained.

MIGRAINE.

Dr. Baton passes in review all the remedies used for sick headache, and giving every credit to the latest, antipyrine, he still concludes, after trying it on a number of cases, that there is nothing like *common salt*,

as he finds that it will stop an attack of migraine quicker than anything else. Nothnagel found that salt would modify epileptic fits if taken at once, and the action in these troubles seems to be the same; that is, a sort of reflex is produced by the chloride of sodium that acts favorably on these maladies. The dose used is simply one-half to one teaspoonful of dry salt, to be followed by a swallow of water. It should be taken just as soon as the attack is felt coming on, and most of these patients are aware when they are going to be taken, as they are familiar with the prodromata of their trouble.

Another doctor asks why pure seawater should not be a powerful remedy, as it contains iodine and many other salts, besides sodium chloride.

ANTISEPSIS IN TYPHOID.

Intestinal antiseptia in typhoid fever cases seems to be in a good way of becoming of the highest importance. In the treatment of such patients, Professor Bouchard first introduced naphthol, and Dr. Legroux is at present applying it in his service at the children's hospital with great success. As soon as a child is brought in suffering with symptoms of typhoid, the intestines are at once cleared out with calomel, given in doses of 0.30 to 0.60 centigrammes, depending on the child's age. The next day the intestinal antiseptic treatment is commenced as follows:

R Naphthol beta. . . . }
Bismuth salicylate } $\bar{a}\bar{a}$ 2 grammes, 50

M. Divide in 10 powders, and give one every hour in a wafer, or mixed with a little milk or brandy.

If the diarrhœa is not important, the bismuth may be left out and only the naphthol given, and if on the contrary there is constipation, then the following is used:

R Naphthol beta. 2 grammes, 50
Magnesia salicylate, 2 grms, 50, to 5 grms.

M. Divide in 10 powders, and give one every hour until the bowels are free, and then continue with the naphthol only, as before.

It will be found that there will be a diminution or entire suppression of intestinal meteorism, and that the stools are disinfected, no longer giving the fetid smell of typhoid, and also the mouth and tongue will clear up, the general state will improve, the disease

will evolve quietly, and the convalescence will be shortened under this treatment. Naphthaline was tried, but it was found so disagreeable to the patients—most of them refused to take it—that it had to be stopped. It also presents some danger of absorption.

PROPHYLAXIS OF ALCOHOLISM.

M. Lancereaux read a report lately to the *Académie de médecine* on the prophylaxis of alcoholism that deserves some attention. He believes that the bad effects of alcohol can be prevented by the use of albuminoid foods, and he recommends a form of chocolate for that purpose. He also proposes a law by which spirit sellers (retail) shall be allowed to deliver but a very small quantity at a time, and that all alcoholic spirits should be inspected by competent chemists, so that it shall be sold pure, without any mixture of hurtful substances. Above all, what is important is to try and preach against the deep-rooted prejudice that some form of alcoholic drink is necessary to nutrition, an idea as false as it is general. Most ignorant people in Europe believe that such drinks give strength, and that it is impossible to work or even to live without taking something of the kind. It is this stupid nonsense, which we know to be false, that we must combat to render the working population as healthy as those robust nations which resist all maladies, and people who do not use alcohol in any form. It is precisely the sober man that the doctor can cure most easily, but the conservative world learns facts slowly.

ACTION OF DRUGS ON SECRETION OF BILE.

Some experimental researches on the action of medicines on the bile secretion, and their elimination by that secretion, made by M. M. Provost and Benet, are interesting, because the cholagogue action of drugs, notwithstanding the number of scientists who have written on the subject, is far from certain as yet. The present experimenters worked upon two dogs, that were first of all operated upon and successful biliary fistulas established. For several months they were kept in good health by excluding from their diet all fatty matters, which, by the

way, was noticed to pass in the stools without any alteration. The quantity of bile increased a little with alimentation, particularly when peptones were given; but fats did not produce any augmentation, and water but very little. Experiments made with the large rectal injections of cold water, lately recommended to cure jaundice, did not prove that they had any effect on the bile secretion.

The different medicinal and other substances given by hypodermic injection, or by the stomach, can be divided into four classes, according to their action found on the bile secretion: 1st. Substances increasing bile secretion. Bile itself, using that from cows, sheep, pigs and dogs, was the most powerful of all the cholagogue substances found. It has a certain toxic action in subcutaneous injection, but given by the stomach seemed to be well tolerated by the dogs. Urea was also tried, and gave a considerable increase of bile, but also gastro-intestinal troubles of a serious nature. The following also showed an increase of bile: Essence of turpentine and all its preparations, terpinol and terpine, chlorate of potash, benzoate and salicylate of soda, salol, euonymine and muscarine (given hypodermically). 2d. Substances that gave only a slight or doubtful increase of bile—bicarb. soda, sulphate soda, the Carlsbad salts, propylamine, antipyrin, aloes, rhubarb, *hydrastis canadensis*, *ipecac.*, *boldo*. 3d. Substances causing a diminution of bile—iodide of potassium, calomel (this also gave a green color to the stools, when no bile was allowed to pass), iron and copper salts, atropine (injection) and strychnine (in toxic doses). 4th. Substances that were found to be without any action on the secretion of bile. These were: Phosphate of soda, bromide of potassium, corrosive sublimate, arsenic, alcohol, glycerine, ether, quinine, caffeine, kairine, senna, columbo, and pilocarpine. It can be stated from these experiments that the elimination of drugs introduced into the organism is very slight by the bile secretion; they pass in very small quantity, as they do in the saliva and sweat secretions; and certainly these three secretions are im-

mensely inferior to the urine as a means of elimination of medicines. There is no constant connection between the elimination of a substance by the bile, and the action that it has on the activity of the bile secretion itself.

DOM PEDRO'S TREATMENT.

Some attention has been paid to the recent treatment by which the old Emperor of Brazil was brought out of his illness at Milan, and he is now fast recovering at Aix les Bains. It was hypodermic injections of caffeine that saved him, and in this connection it should be remembered that caffeine is an uncertain drug, that has to be given in sufficient quantity in heart failure, and yet if too much is given it may prove fatal. It is also very insoluble in most or all of its salts, such as the citrate, etc., and it may be well in this connection to give Dr. Huchard's formula:

R Caffeine.....2 grammes
Benzoate of soda3 grammes
Distilled water6 grammes
M. (Make the solution while it is warm.)

From four to six injections per day, the usual syringe-full used each time of this solution, is the proper dose. It will be found to act as a general tonic, a cardiac tonic, and above all as a *diuretic*, being perhaps the best of all for this last purpose. The salts of caffeine are not used here now at all, but the drug itself combined with benzoate of soda to make it soluble.

THOMAS LINN, M. D.

REVIEWS AND BOOK NOTICES.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. Edited by CHARLES E. SAJOUS, M. D., and seventy Associate Editors. Illustrated with chromolithographs, engravings and maps. 1888. Philadelphia and London, F. A. Davis, Publishers. Five volumes, 8vo, each containing about 550 pages. Price, \$3.00 per volume.

When the plan of this work was first brought to our notice, we expressed an unfavorable opinion of it, thinking that the editorship of so ambitious a work should have been placed in the hands of a man older in the profession and with more general experience than that

of a specialist who has never been a general practitioner. We are pleased to say that this objection has not proved well founded, and that Dr. Sajous has done his work in a way which leaves little to be desired. While the papers are necessarily of unequal merit, as being the productions of many persons, it is remarkable that there is so little which is decidedly objectionable. Dr. Sajous' judgment in the selection of his collaborators has been abundantly justified.

There is perhaps more space devoted to ophthalmology and otology than is warranted by recent advances in those sciences when compared with other sections; but this is hardly within the control of an editor.

Dr. Wilson's paper on typhoid fever is so good that we are sorry he did not make it better, by adverting to Dujardin-Beaumetz's denunciation of milk as a diet in this disease. The eminence of the speaker and the gravity of his subject should have won consideration in a work like the present.

So also in Parvin's article upon puerperal diseases, we find nothing of equal importance to Gardner's paper upon puerperal sapræmia, which is not mentioned.

But such omissions are unavoidable in a work which has limits. Taken as a whole we feel justified in commending the *Annual* to the favorable consideration of our readers. It will form a valuable addition to any physician's library.

A SYSTEM OF OBSTETRICS. By American Authors. Edited by BARTON COOKE HIRST, M. D. Vol. I. Illustrated with a colored plate and 309 wood-cuts. Philadelphia, Lea Brothers & Co. 1888. pp. 808.

The recent election of Dr. Hirst to the position of Associate Professor of Obstetrics in the University of Pennsylvania will increase the interest with which this book is received by the profession.

Engelmann occupies with the history of obstetrics fifty-one pages, which is quite enough, especially as he is compelled to contradict in a terminal note one of the most important statements in the body of his article.

Martin, of Baltimore, gives an exhaustive resumé of the latest researches upon ovulation and the development of the embryo.

Dr. Hirst himself treats of the physiology and pathology of the fœtus. The article is erudite, expressed in the language of a scholar, and is altogether deserving of high commendation.

Speaking of the treatment of inevitable abortion, he recommends for severe hemorrhage in the early stages the use of tampons of baked cotton, made into balls the size of a walnut and packed closely into the vagina so as to fill up its upper third. This is in accord with the teaching of Parvin. He does not speak favorably of Braun's colpeurynter. Nor do we, but the modification proposed by Hamon de Fresnay is simply an ideal tampon. This is a very soft and thin rubber bag, resembling a condom, which is introduced within the cervix and then dilated with hot or cold water.

In the treatment of retained secundines Hirst leans to the side of active interference, though he states both opinions and their authorities fairly.

The physiology of pregnancy is treated by Jaggard; the phenomena of natural labor by Busey; the mechanism of labor by Penrose; the use of anæsthetics in labor by Reeve, and anomalies of the forces in labor by Parvin; all in a satisfactory manner. The mechanical work upon the book is what we have learned to expect in all works issued by Lea Bros. & Co.

ESSAYS ON HYSTERIA, BRAIN-TUMOR AND SOME OTHER CASES OF NERVOUS DISEASE.

By Mary Putnam Jacobi, M. D. New York and London, G. P. Putnam's Sons. 1888. 8vo, pp. 216.

Perhaps no single person has gone so far in demonstrating by their writings the usefulness of women as physicians as Mary Putnam Jacobi. Her works have an intrinsic value of their own, not in the least depending upon the courtesy due her sex for their favorable reception.

The article upon hysteria gives the details of thirty-seven cases. The author speaks thus of oöphorectomy for intractable hysteria: "Theoretically it is perfectly logical in cases of

hyperexcitability of cerebral sensory centres which have resisted all other means of treatment, to remove the ovaries in order to cut off from these centres the large mass of centripetal impressions which reach them when the rhythm of menstrual processes is going on." She thinks that the operation can only be called a failure after the lapse of two years, as the morbid symptoms are sometimes slow in passing off.

PRACTICAL MICROSCOPY A COURSE OF NORMAL HISTOLOGY FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By MAURICE N. MILLER, M. D. New York, William Wood & Co. 1887. 8vo, pp. 217.

LETTERS TO THE EDITORS.

PEPSIN TESTING.

Editor MEDICAL TIMES:

As the various manufacturers of pepsin are constantly lauding their own wares in the different medical and drug journals, and as constantly deprecating the products of other manufacturers, I thought you might be sufficiently interested in some experiments which I have made to give them a place in the *TIMES*.

Having no preferences for or prejudices against any particular pepsin, I think I can state my results without the charge of bias being made. The samples were taken from my own stock and subjected to examination, as recommended by M. B. Manwaring.*

First, I selected fresh eggs, all laid on the same day. These were boiled for fifteen minutes, to assure thorough coagulation; 300 grains were then rubbed to a smooth paste in a Wedgwood mortar, with 134 grams (or $4\frac{1}{2}$ fluid ounces) of distilled water, containing two-tenths per cent. of hydrochloric acid. By this means contact with iron is avoided, when by rubbing the albumen through a sieve, the oxide of iron is rubbed off, and thereby renders the pepsin inert.

The albumen was then placed in a bottle, and to it was added four grains of saccharated pepsin, made by rubbing carefully (so as not to generate heat) two grains of the pepsin to be tested

with thirty-eight grains of milk sugar; each four grains containing one-fifth grain of pure pepsin. As the ferment was added, the bottles were labeled, corked and placed in a water-bath, at a temperature of 80° F., gradually raised to 105° F., and maintained at this for six hours, with agitation every hour. The temperature was then run up to 160° F. for ten minutes; the bottles were then removed and allowed to stand at rest for twelve hours.

Ten c.c. of this liquid peptone was placed in a tared and labeled glass evaporating dish, and evaporated over a water-bath until it ceased to lose weight; then weighed, and the dry peptone calculated as albumen by the following rule:

As seven-eighths of hard-boiled albumen is water, consequently, seven times the amount of dry peptone, subtracted from the 10 c.c. of peptonized liquid, gives the amount of acid water taken.

As this amount is to the amount of albumen in the 10 c.c., so is the whole amount of liquid to the answer.

Thus: amount of dry peptone, 0.10 grms. $0.10 \times 7 = .70$; 10 c.c. — .70 = 9.30 c.c.: $0.10 \times 8 = .80$ grms. As $9.30 : .80 :: 134 : 11.52$ grms. This amount, multiplied by the number of grains in a gram, gives the amount of albumen dissolved by one-fifth grain of pepsin; consequently, one grain will dissolve 887 grains.

The pepsins examined were: Ford's, in scales; Royal, powdered; Fairchild's, in scales; Jensen's, in crystals.

The results in dry peptone were as follows:

	Grms.	Results as per above rule.
Royal.....	0.10..9.30 :	.80 : 134 = 11.52 = 177.4 = 887.
Ford's.....	0.11..9.23 :	.88 : 134 = 12.77 = 196.5 = 983.
Fairchild's.	0.13..9.09 : 1.04 :	134 = 15.33 = 236. = 1180.
Jensen's....	0.06..9.58 :	.48 : 134 = 6.71 = 103.3 = 516.

The above is an accurate average of these experiments made under exact and similar conditions.

In all the experiments Jensen's held second place as regards appearance as they stood in the bottles. Not being able to account for this anomaly, I made the following experiment:

300 grains of hard-boiled albumen were rubbed to paste with $4\frac{1}{2}$ fluid ozs. of acid distilled water, and twelve grains of sacch. pepsin, or three-fifths grain of pure pepsin, was added to

* *Druggist's Circular*, April, 1888.

each. The bottles were placed in a water-bath and kept at a temperature of 100° F. (agitating every hour) until they were all dissolved, carefully noting the time each became dissolved.

The time was as follows: Fairchild's, 5 hours 40 minutes; Jensen's, 7 hours; Ford's, 8 hours 30 minutes; Royal, 56 hours, and then some small flocks floating through it.

I have no comments to make; this I leave to the medical profession and the manufacturers.

Knowing, as I do, that the profession at large have no time to go into the investigation of the pepsins of the market, and that the druggists are not interested, excepting to unload their shelves of the various kinds that are prescribed, I thought my investigation might be of some assistance in prescribing.

J. P. RUSSEL, M.D.,
Pharmacist.

OPINION WANTED.

Editor MEDICAL TIMES:

Will you kindly give your opinion on the "Hutchinson doctrine," namely, "that the internal administration of arsenic will produce cancer of the stomach or alimentary canal?" M.

Rapid City, Dak.

[With the crucial proof now demanded before any new idea is admitted we do not see how "Hutchinson's doctrine" can ever advance beyond the range of a more or less probable surmise. Persons who do not take arsenic become affected with cancer; some who have been using the drug become similarly affected. How is it possible to prove that the latter would not have had the disease if they had taken no arsenic? Could it be proved that the proportional number of cancer cases among arsenic-takers is distinctly greater than among others, some degree of possibility might be alleged for the doctrine. But even here there would be a source of fallacy sufficient to completely demolish this semblance of proof. For it is to be inferred that the administration of arsenic was undertaken for the relief of certain symptoms of disease, and it is possible that these symptoms (gastralgiæ, neuralgiæ, gastric catarrhs, etc.) were really

due to the as yet unsuspected beginnings of cancerous disease.

We believe that more light may be thrown upon the etiology of cancer of the alimentary canal by a study of the pathological specimens to be obtained at the abattoir than by throwing an illogical suspicion upon arsenic.—W. F. W.]

A CHILD'S HEAD BORN AND RETRACTED WITHIN THE VULVA.

Editor MEDICAL TIMES:

Is this a novel case? It was so to me, after an experience of several hundred cases of labor. Was called at 8 A. M.; primipara. Had been under the care of a midwife during the night. An examination disclosed the vertex presenting at the introitus, which was patulous and yielding. The pelvis was roomy and well-proportioned. The contour of the abdomen was round and smooth. I saw no reason why the child should not be delivered at the next "good pain," and said so. The assurance delighted my patient, but elicited a significant chuckle from the old negro midwife, whom I had, contrary to my custom, ignored. A pain came on, and with very slight assistance the head was born, just as I had predicted. I arose from the side of the couch, where I had been sitting the better to manipulate the child; to my utter surprise, the head was nowhere to be found, until I sought it within the rima vulvæ. I learned then from the midwife that the child's head had been born several times during the night—so often that neither she nor the patient could fix the number.

When pain No. 2 came on, I did not interfere; the head was expelled as before, but when the pain began to pass off it was retracted again. When expelled by the next pain, I grasped the head firmly to anchor it, and did so until the retractive force became so great that I feared decapitation, and released it. At the fourth pain, when the head was expelled, I introduced my finger, to find the cervix firmly contracted around the child's neck; by a little manipulation it was passed, and my finger hooked in an axilla, and by that means fixed the child until the pain passed off; as it did so, the cervix

slipped over the child's shoulders. The next pain expelled the entire child alive, and giving conclusive evidence of being possessed of a pair of first-class lungs.

I regret that I did not measure the head at the time, as the circumference was unusually small, while its length was enormous. J. D. BRUCE, M. D.

Prosperity, S. C.

"SUMMER COUGH."

Editor MEDICAL TIMES :

I am troubled with a "summer cough." About three years ago I caught cold in hot weather, and had a cough for some two months. Every year since I catch cold in the summer, and have a cough for two or three months before I can get rid of it. The cough is expulsive. I cough and raise during the day; and also during the night I awake between two and four o'clock A. M., and cough and raise for one hour; sometimes only half an hour. Then I get cleaned out and tired out and fall asleep. As soon as I arise I commence to cough. Great dyspnoea during the coughing period at night, with asthmatic tendency. Cough is loose; sometimes thick mucus in large "chunks" is expectorated; at other times small "chunks"—light gray cast—at other times a white frothy matter.

A cold contracted during the winter season does not affect me in the same manner as one contracted during the summer months. Winter cold almost always commences in the head, then affecting the chest later. The character of expectoration is different.

With a single exception, anything that I have used for the "summer cough" has lost its effect after four or five days, no matter how well it might promise at first. S. J. S.

ANSWER TO A QUERY.

Editor MEDICAL TIMES :

I noticed in the number of the TIMES of June 1st an article from G. W. C., "Diagnosis and Treatment Wanted." I would respectfully suggest that the whole trouble with the articulation of the jaw is caused by a retarded wisdom tooth. The trouble can generally be relieved by excising a portion of gum

covering the tooth; but when that fails to give relief it is always best to extract the tooth. It is a trouble that is often met with and treated by all dentists. GEO. L. STAPLES, Dentist.

Sherman, Texas.

ABSTRACTS.

TREATMENT OF HEAT FEVER AT THE PENNSYLVANIA HOSPITAL.

In the *Amer. Jour. Med. Science*, Dr. F. A. Packard gives the details of 31 cases of heat fever, treated at the Pennsylvania Hospital in 1887.

As soon as the patient with heat fever was brought to the hospital he was placed on a waterproof fracture-bed, his clothing removed as rapidly as possible, a thermometer introduced into the rectum, and ice packed about the body and extremities. Usually at the outset, η , xv or xx of tr. digitalis were administered hypodermically. The thermometer was removed every seven minutes, the icing being continued until the rectal temperature fell to 104° F. The patient was then dried and put on a clean bed, with an ice-cap to his head, and in favorable cases the temperature gradually fell to normal. It was found that, if the icing were continued after the rectal temperature had fallen below 104° F., there was apt to be too rapid and great a fall, so that the application of external heat and free stimulation were required—a state of affairs certainly undesirable.

The above is an outline of the general mode of treatment adopted in the cases with temperature exceeding $106\frac{2}{3}^{\circ}$ F. Those cases with a temperature below that point were stripped and liberally sponged with a mixture of one part of alcohol and four parts of iced water, an ice-cap being applied to the head. If the temperature were not above 106° F., this was always found to be sufficiently active treatment. Subsequent elevations of temperature occurring after primary reduction were treated after the manner indicated above. In but a few cases were any other antipyretic measures adopted.

Other means of treatment were employed to meet individual symptoms in various cases. Where convulsions were

present after the temperature had been lowered to a considerable extent, morphia was employed, usually with good effect. In the favorable cases respiration and pulse both improved in character with the fall of temperature, but, if they did not do so, bleeding was employed in spite of the feeble pulse, and was almost invariably followed by quieter, fuller, respirations, with a soft, steady pulse.

A word in regard to the use of bleeding. When the face was congested or livid, the capillary circulation over the whole body obstructed, the heart, as determined by auscultation, laboring to force the blood around the vascular circle, the breathing shallow and stertorous, the contracted pupils with other evidences of obstructed venous circulation in the brain present, the evident indication was to empty the overloaded veins of the blood that was stagnating in them and so embarrassing both respiration and circulation. Wet-cupping behind the ears was always first tried, but it was in almost every case impossible to withdraw more than a few thick black drops of intensely altered blood, even when crucial incisions with a bistoury were added to the smaller incisions of the scarificator. In no case where it was attempted could enough blood be withdrawn by this means to affect either the general or cerebral circulation. Bleeding from the median basilic vein was then, if deemed necessary, employed, and even with this free outlet the blood did not flow, but had to be squeezed up from the hand, issuing then in thick, black jets and ceasing so soon as upward pressure with the hand was discontinued. After the withdrawal by this means of from twelve to sixteen ounces of blood there was usually marked improvement in circulation, respiration, and color, with, in some cases, complete or partial return of consciousness.

ICE WATER IN CHOLERA INFANTUM.—HENDRIX, in the *Weekly Medical Review*, gives an interesting account of his experience in this disease.

Premising his remarks with the statement that in seven years he had lost no

case, he goes on to attribute his success to the free use of cold water. He gives fifteen grains of bismuth subnitrate every two hours, and dissolves five grains of soda bicarbonate in six ounces of water, which is kept on ice and given to the child *ad libitum*. Even if it be vomited, the child is allowed to drink glass after glass until its thirst is assuaged. During the heated term he recommends the same free use of ice water as a prophylactic.

ABDOMINAL TUMOR.—Here is a woman of 25, a widow, who complains of a swelling of the abdomen. She has noticed it for two months. What is it? Her menses have not flowed since February. This may happen in certain diseases, and during the progress of certain tumors, as well as in pregnancy. She complains of sickness in the morning. This may also occur in the progress of other troubles. The dark median abdominal line of pregnancy is not apparent, neither is the areola around the nipple characteristic of that condition. Is it dropsy? In dropsy we have a clear percussion note in the middle of the abdomen, because the intestines float on the contained liquid. In abdominal tumors or in distended bladder, we may have a rather pear-shaped tumor, but generally there is dulness along the middle line, and a clear note in the iliac regions. In dropsy we have fluctuation; and change of position will make change of percussion note; the clear note always being in the uppermost side, the dull note below. This is not the case here; and though there is an apparent sense of fluctuation, this is fallacious; for when my assistant presses his hand vertically along the median line of the abdomen, there is no fluctuation. Let us look at the vagina. Here you see a very characteristic dark blue tinge. There is often a blue tinge in abdominal tumors; but it is never a tinge so marked as this. The os uteri feels soft and doughy to my finger. Dr. Wallace used to say, "Gentlemen, the os of the non-pregnant uterus feels like the tip of your nose; that of a pregnant uterus, like the inside of your lips." This feels like the latter; and above I make out a large

well-rounded swelling starting from the neck of the uterus.

My diagnosis here is a pregnancy of about five months.

WHEN TO GIVE IRON.—In chronic parenchymatous nephritis, iron is beneficial; but in chronic interstitial nephritis iron should not be given; it locks up the secretions and causes unpleasant head symptoms.

MISCELLANY.

THE PHILOSOPHICAL LECTURES AT THE MEDICO-CHIRURGICAL HOSPITAL.

DR. GARRETSON finished his summer lectures on philosophical subjects to the classes of the medical and dental schools, Wednesday afternoon, June 13. With a view to testing the students in analysis of a paradox, he told the story of a talk had with a member of the class, suggesting that whoever found himself able to guess the riddle while the paradigm was being recited might accept his fitness to pursue philosophical studies.

As a paradox the following syllogism, taken from his book, "Nineteenth Century Sense," was offered. The thing to be proved is that while a Present seems to be the converse of Eternity it is one and the same.

Syllogism:

That which is perpetual is eternal.
Now is perpetual.
Ergo,
Eternal and now are one.

The paradigm, contained in the story, was given as follows:

A conversation was being held with a student concerning materialization. A person told me, I said, that on a certain evening early in the fall he was sitting in meditative mood upon a half-rotted log lying in an old worn-out pasture lot owned by him at Lansdowne, when he was electrified by the sight of a little head directly at the side of one of his feet, which, for all that he saw of its coming, might as readily have dropped from the clouds as come from anywhere else. "Too startled and spell-bound to move," said the person, "I beheld the little being take to itself shoulders and body, en-

larging and enlarging, until, after the lapse of a few minutes, or, it may have been hours, for I was oblivious to everything but the wonderful sight I was favored to see, it assumed a perfect bodily form. To satisfy myself that the form had solidity I reached and touched the flesh. It was as real, and as solid, as any skin-enveloped muscle I had ever felt. Materialization thus affected, the ghost stood fixed as a statue for quite the space of half an hour balancing itself upon a single leg, which was all I could see that it had. Later, it accompanied me to the city, and for a period of several days never left me for a moment, going as I went, and coming as I came, finally dematerializing after a manner quite as curious as that in which it had taken on form."

The student is a graduate. "I would feel myself entirely justified," he said, in using my M.D. for the signing of a certificate that should put the teller of the story in a lunatic asylum."

"But the person," I said, "is a professor."

"Can't help it," said the student, "no sane man would imagine such an impossibility."

"The person is myself," I said.

The student shrugged his shoulders. "Do you honestly mean the story as anything but a joke?" he asked.

"So far is it from being a joke," I said, "that nothing could persuade me that I had not seen the materialization exactly as here described, and that the ghost, if this be a proper name for the phantom, did not go with me to the city and accompany me around the streets for several days."

If our reader fail in getting the something for which the paradigm stands he will find the solution in our next number.

THERAPEUTICS OF HAY FEVER.—GENTH, in *The British Medical Journal*, gives the following recommendation:

Since the first symptoms are manifested in the eye, he begins at the earliest possible date to bathe the conjunctiva with a solution of mercuric chloride, 1 to 3000. This was commenced two weeks before the date of the expected outbreak, whenever the patient returned home after open-air exercise.

The patient was also directed to keep cool, and to wear pale-blue spectacles.

The result in the case described was satisfactory.

PENNSYLVANIA HEALTH RESORTS.

The advent of the summer season brings with it many problems for the physician in relation to the advice to be given his patients; where to send them, what place is suitable to the disease and to the purse, is within easy reach, etc.

Hoping to be able to facilitate the solution in some cases, we sent out circulars to the leading physicians throughout this State, requesting replies to the following questions:

1. Do any mineral springs exist in your county? What are their uses, their constituents, etc.?

2. Are there any other health resorts, lakes, pine forests, etc.?

3. What is the temperature range in summer and in winter?

4. What is the effect of the climate upon

- A. Hay Fever.
- B. Bronchitis.
- C. Phthisis.
- D. Heart Diseases.
- E. Scrofula.
- F. Malaria.
- G. Other Diseases.

5. What is the character of the drinking water?

6. What are the hotel accommodations; capacity; table; charges; conveniences for invalids?

7. What diversions can persons obtain; boating, fishing, shooting, scenery, driving (roads), etc.; cost of each, if possible?

8. What class of invalids would you especially advise to come to your locality?

9. What class would you advise not to come?

From the replies received the following data has been taken:

ADAMS COUNTY.

Gettysburg.—Apart from its historic interest, this town possesses a spring for which remarkable properties are claimed. The water is said to be a specific for dyspepsia, rheumatism, gout, etc. Its greatest reputation is

probably in the cure of the so-called chronic rheumatism, or arthritis deformans. The late Dr. J. A. Reed, of Dixmont, who was an excellent therapist, valued this water highly in the treatment of all the group of chronic rheumatoid affections. Major Coleman, of the Springs Hotel, tells us the water cured him of diabetes.

The hotel accommodations are said to be good; terms, \$10 to \$16 per week. The battle-field furnishes an unfailing source of interest to visitors. Besides this, the hotel contains the ordinary appliances for diversion.

The high price demanded for this water (\$6.00 per case of 24 quarts or 80 cents per gallon, in bulk), has undoubtedly prevented it from coming into more general use.

Bonneauville is five miles east of Gettysburg, on the State road between Gettysburg and Hanover. The water is of very good quality. There are springs around the place for which mineral impregnation is claimed; but no analysis has, as yet, been made of any of the waters. The air is exceptionally free from marsh miasma and other impurities. The temperature is variable, with no extremes of heat or cold. The locality is very healthy, and could be especially recommended for invalids suffering from malarial poisoning. The prevailing diseases are, in the winter and spring, catarrh, pulmonary and abdominal affections, some pneumonia, rheumatism, and a few cases of phthisis, and the diseases incident to childhood; in summer, cholera morbus, diarrhœa, and sometimes dysentery. Great heat and much wet may, through August and September, give rise to a few cases of remittent fever; but intermittent is not found here unless brought from other places.

There are no provisions for the accommodation of invalids or for summer resort, except a house for the accommodation of public travel. DR. A. NOËL.

ARMSTRONG COUNTY.

I will attempt to answer partially your questions:

- 1. I know of no mineral springs.
- 2. No. The whole county is healthful.
- 3. Summer temperature from 50° to 95° in shade. Winter temperature

rarely below zero for any length of time, yet sometimes gets down to 30° below.

4. A.—Patients from the city are benefitted. Many suffer with it who remain during the whole year.

B.—Not favorable, especially in winter and spring.

C.—Many die with phthisis.

D.—Also, with heart diseases.

E.—Very little scrofula.

F.—Almost no malaria, except imported cases for a short time, and a few along the Allegheny river.

G.—Pneumonia, typhoid fever, scarlet fever and other diseases prevail in localities; not usually fatal or malignant. Almost no venereal disease in country districts.

5. Drinking water is excellent.

6. Not good except in county seat and towns.

7. Shooting and fishing only tolerable. Scenery inspiring. Roads good for hilly country in summer.

8. Children needing fresh air and pure water and good diet.

9. Hard to answer.

This is a healthful county, invigorating, well drained by nature. Patients from the city would be benefitted by residence here. There are no prevailing diseases, yet there are many who have poor health. Influenza often prevails during February, March and April. We have comparatively few cases of typhoid fever, diphtheria or scarlet fever; but occasionally a district is afflicted with one of the above, and, when the disease is of a malignant type, many die.

You will see by these answers that there is nothing remarkable about this locality. Yet it is certainly very salubrious, and especially so about Slate Lick.

J. C. CHEESEMAN, M.D.

Slate Lick, Armstrong Co., Pa.

BEDFORD COUNTY.

Bedford Springs.—A paper by Dr. Enfield in the preceding number of this journal gives all needed information upon this celebrated resort.

Schellsburg.—This town is four miles from Mann's Choice, on the P. R. R. It has a population of 400, whose disposition is indicated by the fact that they have four churches and never a saloon. There is one hotel, and boarding may be had in families at \$3.00 to

\$6.00 per week. There are three physicians. None of the affections mentioned are prevalent. Pulmonary diseases are worse during March. The water is limestone and soft. Any of the diversions mentioned can be enjoyed at reasonable rates. These answers are furnished by Dr. T. F. Ealy.

Sulphur Springs.—This beautiful retreat among the pines and mountains is situated in Milligan's Cove, ten miles south-west of Bedford. Sulphur Springs Station is on the railway from Huntingdon to Cumberland. There are daily conveyances over the one and one-half miles of picturesque road to and from the Springs.

The Sulphur and iron water combined is valuable. There is a large new hotel, with broad verandas surrounding the same. The hotel is newly and neatly furnished. Terms quite moderate. Open now, and early and late in the season.

BLAIR COUNTY.

Altoona.—In answer to your inquiry upon health resorts, I am satisfied we are benefitted by a change of atmosphere to a rarer or denser. If our dwelling is in a low and dense stratum seek a higher. In seeking a change we should avoid great extremes, and thus prevent pneumonic trouble.

In keeping with these observations, and in corroboration of our experience, our locality is an excellent resort in summer. The change from a lower is not too great to invite danger, while it is a delightful change to pure air, cool nights, beautiful scenery and good society. Cresson has an elevation of 2200 feet above the sea level, with its mineral waters, magnificent shade and fragrant flowers, easy access by all trains that run on the Pennsylvania Railroad—one of the smoothest and best equipped railroads in the world. Not the least of its benefits is its proximity to Wild Wood Park, four miles on the Cresson and Coalport Railroad, which, for cool shade, pure water, mineral springs, primitive forest and absolute retirement, is not excelled in America. The society is of the very first order. It is rather moist for asthma.

S. M. ROSS, M. D.

[TO BE CONTINUED.]

OBITUARY.

DR. RACHEL L. BODLEY.

At a meeting of the Faculty of the Woman's Medical College of Pennsylvania, held June 20th, 1888, the following action was taken on behalf of the death of Prof. Bodley:

WHEREAS, Our honored Dean and Professor of Chemistry, Rachel L. Bodley, has suddenly been removed from the arena of earthly activities, in so many of which she was deeply interested;

Resolved, That we, her colleagues of the Faculty of the Woman's Medical College, recognize in the removal of our senior member the loss of one most familiar with the historical and traditional features of the College and its past work.

She was thoroughly acquainted with the laborious duties of Dean, which she performed most ably and acceptably, and in which her wise administration secured for the College friends where-soever her influence was exerted.

She was keenly alive to the personal as well as educational requirements of the students, so many of whom coming as strangers from far distant lands found in her at once a friend earnestly solicitous for their welfare and ever ready to do all in her power to further their interests.

She was an able teacher of Chemistry, striving successfully by word and illustration to elucidate the intricate problems of her branch.

Religiously devout, she at once placed before those with whom she came in contact a high standard socially and morally, and did much to establish the same for the College to the service of which her efforts, and indeed her life, were so unsparingly, unceasingly and ungrudgingly devoted.

Possessing an acquaintance among peoples in all lands, through her College relations and affiliations, her usefulness to us and to the world can scarcely be over estimated, so varied and extensive had it become.

As a friend she was ever genial, kindly and courteous, and we shall greatly miss her quiet dignity in our Faculty meetings. In the entire round of College work, with the extensive ramifications

of which she was so thoroughly familiar, we feel her loss to be almost irreparable.

Resolved, That these be spread on the minutes of the Faculty, and a copy be sent to her aged mother.

HOW ORANGE WINE IS MADE.

The oranges are carefully selected, and any that are at all specked are rejected. From the bin, the fruit is placed on peelers where the rind is carefully removed, and thrown aside to make orange oil. The peeled oranges pass down into a grater, where each is torn into pieces, falling into a water-tight tank. From this mass, the hands shovel the fruit upon racks, on which cloths are spread. When the layers of fruit are four inches thick, the cloth is doubled over the top. Another rack is laid on this layer, and so on until ten layers of desiccated oranges are prepared. These layers slide under a press which works very slowly, until the juice is entirely expressed.

This juice runs into reservoirs. It is then pumped into immense casks, holding 2000 gallons each. Here the sugar is added, and violent fermentation sets in. At the expiration of a week or more, time dependent upon the weather, this juice is racked off into another of the twenty casks, thus clearing it of sediment. At times it requires to be racked off three times to entirely clear it. Each racking loses about forty gallons to the large cask. Three months' time in the cask renders it fit to draw off into barrels, but three years' is required before the wine is ready for sale. It is shipped north in barrels and there placed in large casks, in a wine cellar, for 3 years.

[This wine has been recommended as a valuable stimulant in summer complaint.]

Four candidates applied last week to the Medico-Chirurgical College for endorsement. But one succeeded in passing the examination; a graduate of the Medical Department of the University of New York.

FAVORABLE reports continue to be received from General Sheridan. It is to be hoped that he will furnish another instance of a case which has excited public interest in a marked degree, and has nevertheless recovered.

PHILADELPHIA MEDICAL TIMES.

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AUGUST 1, 1888.

VOL. XVIII

ORIGINAL COMMUNICATIONS.

ABSCESS OF THE CEREBELLUM FOLLOWING SUPPURATIVE OTITIS MEDIA.

BY FRANK C. BRESSLER, M.D.,
Baltimore, M. D.

IN the daily routine of the general practitioner probably no affection of the ear is commoner than that of suppurative otitis media. From its great frequency, it often fails to receive that attention which it deserves; consequently, many cases go on which, if properly managed, might have been cured during the incipency of the trouble.

I have never looked upon a running ear without feeling some apprehension for the future of the afflicted one, and, therefore, make it a dogmatic rule to inform the patient or parents of the great danger that may follow a neglected otorrhoea. With the warning of danger, I usually instruct them:

1st. To sleep on the affected ear, if possible; thus assisting ready discharge.

2d. To syringe the ear carefully, as needed, with some antiseptic solution, using the utmost gentleness in doing so.

3d. To follow by blowing into the ear boracic acid, iodoform, etc. In con-

junction with this, I get the patient to come to my office whenever it is necessary, and treat such abnormal conditions of the ear as may exist. Internal medicines are not forgotten, such tonics being given as are indicated.

My previous warnings place the danger, if the case is neglected, before child or parent in its strongest light, freeing the physician from any blame, should any complications result. It likewise secures prompt attention in following out the physician's instructions.

Through the failure of a physician to warn a patient of the danger of a running ear, I had the opportunity of attending a neglected case which terminated fatally, owing to abscess of the cerebellum. The history of the case is as follows: On Monday evening, Jan. 6, 1888, I was summoned to see a boy suffering with earache. I found a man 19 years of age, complaining of pain behind the left ear, over the mastoid process of the temporal bone, localized to one spot the size of a split pea. I found a slight depression in the bony wall, and elicited the history of a former abscess during the preceding June, 1887, which had been lanced and discharged a small quantity of pus. Found that the ear had been discharging from

infancy, sometimes stopping for months. No cause could be assigned for the ear trouble.

With the previously mentioned localized painful spot, I found little or no discharge coming from the affected ear. On further testing I found deafness in it, so that a watch could scarcely be heard one inch from the ear. Temperature normal, but bowels constipated. Ordered a cathartic, and an ointment of equal parts of belladonna and glycerine to be applied over the painful spot. At the same time, I syringed the ear with carbolyzed solution. Examining the ear, I found the membrana tympani perforated and some granulations in the auditory canal.

The discharge was of a very fetid character. After the ear had been syringed, iodoform was dusted into it. From the obscure nature of the symptoms, I was not able to tell what was going to follow; so I told the parents that, in all probability, we might have to deal with some ear disease which had not as yet fully developed.

Next day, I found that the pain over the mastoid process had shifted itself to the concha. The following day, I found no marked change, except deep pains in the meatus. I ordered onion poultices to be applied over the ear; with this, hot laudanum to be dropped into it every hour; this treatment gave no decided relief.

On the morning of my fourth visit, I found a slight swelling over the left mastoid process, which fluctuated; upon lancing it, about a drachm of creamy pus escaped. This pus cavity was then carefully cleansed with a bichloride solution. On probing this opening, I found that my probe followed a channel leading in the direction of the middle ear. The wound was dressed with iodoform. Quinine and tincture of iron were given internally; to this calcium sulphide, gr. $\frac{1}{4}$, four times daily was added. From the previous depression in the mastoid process, together with the previous history, I concluded that caries of the mastoid process had previously existed, and that the present attack was simply another recently lighted up.

Associated with the appearance of

the mastoidal abscess was marked frontal headache, which was very persistent. Temperature normal. Appetite lost. Tongue heavily coated. Bowels constipated. Both the ear and wound were carefully syringed out each morning by myself and afterwards dressed with iodoform.

On the morning of the seventh day, I found my patient suffering with a spasmodic contraction of the left sternomastoid and trapezius muscles, which was of a very painful character. These muscles seemed considerably swollen; in fact, the entire left side of the neck was swollen. Frontal headache severe, temperature 101° , facial expression haggard and apathetic; inability to open the mouth more than half an inch, the result of contraction of the left temporal and masseter muscles, fixing the lower jaw; inability to rotate the left eye outwards beyond the median line; if attempted, this gave rise to considerable pain. Pupil in the left eye moderately dilated, while the right appeared normal. Their reflexes good to tests. Nose deflected to the right side. Whenever he attempted to open his mouth, the right angle would be drawn upward with corresponding depression of the left angle. He had diffuse pains in the left arm and shoulder; left leg seemed weaker than the right and its gross muscular power diminished. Bowels constipated. He was inclined to be sleepy; when spoken to, however, would answer clearly and intelligibly. He was able to walk, if supported, from his bed to a chair in the room. While walking, his only complaint would be of great muscular fatigue. The wound behind the ear looked healthy and was discharging laudable pus; while the ear was discharging the same amount as it usually did.

So far, with all the above mentioned symptoms, we here see the marked absence of vomiting, sub-occipital headache, mania, ptosis, and interference with sight. Knowing that brain mischief frequently follows suppurative ear diseases, I came to the conclusion, after carefully analyzing the boy's previous history, the peculiarity of the symptoms and condition, that I had some serious brain trouble

to deal with, and, in all probability, an abscess. I so communicated my opinion to the family, and advised trephining of the mastoid process, and, if the tract was not reached, to go further. I likewise advised consultation, and Prof. Chambers was called in. After carefully examining our patient, he agreed with me as to a probable abscess being present, also advised that trephining be done as suggested by myself. The family, however, would not consent to an operation, so I simply kept the wound open and awaited further developments. I noticed now that whenever the ear was syringed he complained that the fluid got into his mouth, showing a clear communication with the mouth through the Eustachian tube. In this condition he remained until Jan. 27, 1888, sometimes feeling better, then worse again. On this day he began to complain of intense pain along the cervical and upper half of dorsal regions of the spinal cord. Every movement was attended with excruciating pain, so that it was very difficult to get him to change his position. Percussion over the spinal column proved intensely painful. His only desire was to lie on his back, supporting it by pillows; this gave some relief. Pains in both shoulders and arms. His torticollis was still present, but not quite so painful as it had been. Headache very severe, frontal in character. Temperature 100° ; respiration slightly increased. Head bent forwards, as it gave rise to severe pain if attempted to bend it backwards. He was markedly drowsy, irritable and cross when aroused; but his mind, however, remained clear, and his pulse slow and full.

These symptoms grew more marked each day, and on February 4 he passed his urine and feces involuntarily; though his mind was clear, strange to say. When aroused, he complained of frontal headache; his face was drawn well towards the right side, but no complete paralysis in any portion of the body was present. All muscular troubles were pareses only. On the 5th his pulse began to get rapid and soft; stertorous breathing appeared. In this condition he remained all day, dying on the 6th, in coma, never having had any convulsions or marked paralysis

throughout the whole course of the trouble. This shows how severely parts of the brain may be affected and still show no definite symptoms as to the extent and location of such affection.

Autopsy, twenty-four hours after death. Membranes of brain intensely injected and œdematous. Brain congested, with considerable effusion throughout the ventricle and at its base.

In the left cerebellar fossa of the occipital bone, between the brain and pia mater, was a sinus leading from the posterior surface of the petrous portion of the temporal bone corresponding to the wall of the tympanum, to the left lateral lobe of the cerebellum. This sinus terminated in an abscess cavity about two inches long by one inch wide. The same contained about four to six drachms of healthy pus. The cerebellar tissue surrounding this cavity was much softened. No other places in the brain were found to contain pus.

Upper portion of spinal cord was congested; also œdematous. Considerable effusion in sub-arachnoid space, but not purulent.

Thrombosis of left internal jugular vein and left lateral sinus. The thrombi were organized. No other important changes in the brain or spinal cord were observed.

The wall of the tympanum was honey-combed, allowing a probe to pass readily from the interior of the skull through the external auditory meatus. Further examination was not made, as no permission could be gotten.

We observe from this case:

1st. As a fatal issue stared us in the face after the second week, surgical interference would have been the only remedy.

2d. Had trephining been done through the mastoid process, as previously suggested, we would have precisely struck the sinus; by this we would have given a means for thorough drainage. Of course, this may seem bold; but when we see how the case was progressing, I think such a step would have been justifiable.

3d. The obscurity of the symptoms; showing how much the lateral lobes of the cerebellum can stand without giving any clue as to how much they are in-

volved; showing also that we have as yet no positive means of diagnosis in positive lesions of the lateral lobes.

4th. The comparative rareness of cerebellar abscess from suppurative ear disease.

THE INFECTIOUS NATURE OF PHTHISIS PULMONALIS.¹

BY L. B. KLINE, M.D.,

Catawissa, Pa.

THE object of this paper is to discuss the question of the infectious character of phthisis, a subject which is at present claiming the attention of a large number of the profession. This theory is not new; in fact, it dates back as far as the history of medicine itself.

A number of eminent physicians of every age have advocated the doctrine that phthisis is both contagious and infectious. Among the earlier ones may be named Galen, Cullen, Morgagni, Addison, and Bright.

This view has also been generally disseminated among the masses in some countries; especially Spain and Italy.

A great stimulus was given to the discussion some years ago by the discovery that tuberculosis could be produced by inoculation.

In 1865, Villemin demonstrated the fact that tuberculosis could be communicated to rabbits and to other animals by inserting the gray tubercle beneath the skin. The experiments of Villemin and of others have shown that injection of tuberculous matter beneath the skin, into the pleural cavity or the peritoneum, is followed by an eruption of tubercle in two or three weeks.

Lapperines caused dogs to breathe for several hours, daily, the air of a room impregnated with exhalations from a mixture of phthisical fluid and water. After a period of from twenty-five to forty-five days, they were killed; whereupon all but one of the eleven animals thus treated were found to have miliary tubercles in both lungs. If tuberculous matter be taken from an animal in which the disease had been produced by inoculation, and then be inserted into another animal, the disease is transmitted.

Some, however, contend that disease of a similar character may be produced by inoculating with any morbid matter; but the weight of evidence is in favor of the specific character of the tuberculous matter.

Cohnheim, previously an opponent of this doctrine, has also experimented with phthisical sputa, and claims that the mode of action of tuberculous matter corresponds closely with that of syphilis.

In addition to this and many other similar facts, numerous cases have been recorded, or come under the observation of the profession, where persons free from inherited tendencies, after waiting upon and closely associating with some relative that succumbed to consumption, have themselves contracted the disease and died of it. The only rational way to account for these cases is upon the theory of the infectious and contagious character of the disease. The fact that only a small proportion of persons thus exposed to the disease are affected by it is no proof of its non-infectious character. It is not claimed that the disease is so virulent as that there is no escape from it when once exposed; but we have sufficient proof of its specific infectious nature, and the possibility of its communicability, to believe that under peculiarly favorable conditions persons exposed will contract the disease.

Not every person exposed to variola or other contagious diseases is affected by it, yet we know these to be communicable to the majority of persons who are unprotected. Among the later authors to subscribe to this doctrine may be named Dickson, Flint, Da Costa, Stillé, and W. H. Wells.

These, however, are only a small proportion of the whole number of physicians who accept this theory. The facts thus developed in regard to the infectious character of the disease cannot fail to lead us to the conclusion that the disease may also be communicated to man by eating the meats of tuberculous animals, or by using the milk of animals thus diseased.

¹ Read before the annual meeting of the Columbia County Medical Society, held at Bloomsburg, Pa., June 9, 1888.

The date mentioned in Dr. Blake's article, page 583, should have been 1884, instead of 1888.

CONTAGIOUSNESS OF PHTHISIS.

BY F. L. FLICK, M.D.

Abstract of a paper read before the Pennsylvania Medical Society, June 7, 1888.

AFTER a general review of the subject from the time of Isocrates downward; after citing in favor of his belief the opinions of many distinguished men who have lived since that time; and after combating with some warmth the now prevalent theory of heredity, he arrays his arguments.

Among the lower European countries the belief is common that consumption is contagious, and in some places the clothing of consumptives is disinfected with about as much care as that of a cholera patient.

There are many instances in which consumption has run through whole families, and if the course had only been the shorter one of many an acute disease, the malady would without a doubt be called contagious.

According to Dr. Benjamin Rush, consumption did not exist among the North American Indians prior to the advent of the white man.

In England the contagious theory has never been believed, and consequently no precautions have ever been taken. As a result the Indians near the settlements which the English colonized quickly took the malady, and it became more common among them than among the English. This result is again in accord with the action of contagious diseases; history having shown that they have a period of rise and one of decline, after visiting a hitherto unaffected spot; the people becoming in fact acclimated.

But in those districts which were settled by the Spaniards, coming from a country which practised government disinfection, consumption was hardly known till the regions became sanitaria for consumptives from the north and north-east. Among these places are California, Arizona, New Mexico, Texas, Florida and Colorado.

The Bermuda and the Madeira islands were also free till the disease was introduced from without.

But besides historical arguments the theory can be proved by as many reasons as can be adduced in favor of any acceptedly contagious disease.

A series of topographical maps is here given, representing a twenty-five years' study of phthisis in the fifth ward of Philadelphia.

By these diagrams it is seen consumption is centralized, that it changes its center every three or four years, and that its grouping is identically the same as that of typhoid, small-pox, scarlet fever and diphtheria.

Another map having drawings of all the building lots in the ward shows that a house that has had a case of consumption will probably have another within a few years, and may have a large number of cases in close succession; that approximate houses are considerably exposed to the contagion; and that the disease has a decided predilection for the colored race.

Contagious diseases flourish in filthy neighborhoods; so does consumption. After having used up all the suitable material in a certain locality, it dies out, to reappear when new matter fit for its operation presents.

Another mark of contagious diseases is the fact that each has media of contagion peculiar to itself: the membrane of diphtheria; the pus of small-pox; the discharge from the bowels of typhoid fever; and phthisis has its sputa. The principal avenue of entrance of the bacillus tuberculosis is likely the stomach, and careful study shows that the disease is invariably preceded by some form of indigestion.

Air is probably inimical to the disease germ, and it preserves its vitality only so long as it is protected by the purulent matter in which it is imbedded, or by congenial extraneous matter.

 ERRORS OF NUTRITION.

BY W. I. THAYER, M.D.

OLD Dr. Fothergill once said: "What we doctors want is information on the subject of feeding." What many of our medical schools want is, not so much pathology and therapeutics, but a chair devoted to dietetics and prophylactic nutrition. How to feed, what to eat, what to expect to gain from the food eaten, what pathological conditions are presented by dietetics, and what physiological rank is established by proper attention to the pabulum put into the

body, are questions of such importance as to command the high consideration of every thinking physician.

It is a well-established fact that many diseases are cured by dietetics which without their aid would have a fatal termination. The intelligence that would "stuff a cold and starve a fever," and deplete the circulating fluid, has in a large measure been buried with its authors. The very essence of dietetics is to build up. The sole object of eating food is to supply a constant molecular waste. The consumption of tissue during high temperatures must be met by the supporting treatment of pabulum.

Prof. Graves "fed fevers!" Prof. Austin Flint pleaded for the supporting treatment of continued fevers; yet there are dangers of nutrition that the profession hardly dream of.

The prime treatment in continued fevers—typhus, typhoid, pneumonic and other acute fevers—is alimentation. It is of the highest importance. Present as much as can be digested and assimilated. In all stages of grave diseases there is a repugnance to food. Yet food should be given as a remedial agent, even when the patient does not desire it. This supporting treatment should be in the shape of an easily digesting, partly pre-digested liquid food given in small quantities and at frequent intervals. Amount given must vary according to circumstances; and without risk of over-accumulation in the stomach, and as much as can easily be disposed of.

There are certain tissues of the body whose dietetic necessities have received no attention from the profession. These tissues are peculiar in their demands, in that their wants are best supplied when all tissues are in a good physiological condition. Wilson enumerates seventeen different textures, to which we can properly add three more: the enamel, dentine and cementum.

Good firm, dense and decay-resisting petrous tissues, contain an average of 80 per cent. of lime salts; enamel, 90; dentine, 72; and cementum, 67 per cent. What is demanded is, that our patients may once more possess teeth that will not decay any more readily than did the teeth of our grandfathers.

This can be done. But it is not the condition of the dental organs to-day. Far from it. Almost any food will supply the soft solids of tooth structure, but not so with the inorganic constituents. Specific nutrient matter must be supplied for specific nutritive processes. Cellulose and gluten will not furnish the calcareous matter to build up the petrous tissues, nor can the teeth be built up at any time. They are built up once for all. The time to impact the lime salts into them is when they are building.

It is idle to affirm that because we have able and highly educated dental practitioners, it is useless for the physician to give any consideration to the conservative treatment of the petrous tissue. The physician has opportunities that no dentist can obtain. The opinions of the latter are not so much solicited as to "the best food for the baby," and the special dietetic considerations that are going to effect that baby during his whole life. Therefore, accepting the obligations, let us examine the methods that have brought the best results.

The petrous tissues, as has been intimated, are composed of soft-solids and calcareous salts. Where the inorganic constituents are sparsely interspersed amidst the soft-solids, then we have frail and rapidly decaying teeth. Scarcely a child in the whole country, who has arrived at the age of ten years, can be found who has the six-year molars sound and healthy. Many of them have been extracted. These are the largest and most important teeth of the permanent set. The plain facts are that these teeth—and the others, too—have been starved out of existence and brought to an early extinction, all because they have been deprived of nutrient matter containing the lime salts.

There is but one source from which can come in sufficient quantity to meet this specific want, these lime salts that are so prepared as to be rightly balanced and easily divisible into good strong bone and dental tissue. That deposit is in our cereal foods. The bran, or outside of all our grains, is rich in the phosphate and the carbonate of lime, especially the former, which exceeds the carbonate of lime in tooth

structure more than ten times. Yet we permit it to be bolted out of our bread and fed to the swine; and, as a consequence, the petrous tissues are starved out of existence.

The teeth commence to form very early, and it is then that the mother ought to begin to feed herself upon the coarse bread foods. If she does, the child will receive the lime salts through the umbilical cord and lay a good foundation for both the temporary and the permanent teeth. The mother, if she nurse her child, should continue to receive not less than three times a day a liberal supply of bread foods, constructed out of the unbolted product of the specific grain used. Graham bread—that is, unbolted—wheat bread, Indian and rye meal, or brown bread, oat-meal and unbolted rye bread. There is no pabulum where the lime salts are so easily divisible from their construction, so readily digested, and perfectly appropriated by the tissues as is the case with the cereal foods. Through gestation and nursing these inorganic constituents should be fed to the foetus and child. It is when building that the growing teeth want proper material to build with, from the sixth week of intra-uterine existence up to and beyond the twentieth year.

Caries in the dental organs can be cured by the dental operator only. But physicians can so build, that dental caries will be reduced more than ninety per cent. Will they do it?

We come now to consider those cases where the mother cannot nurse her child. A resort to artificial feeding, the bottle, is infinitely better than indifferent maternal nursing, or a large majority of wet nurses, or wet nuisances.

Cow's milk is more often substituted for mother's milk than any other substance, and there are more complications arising from such nursing than from the natural process. This is owing to the tougher casein found in cow's milk than in that of the human variety.

This can be entirely overcome if the mother or nurse will take the trouble to partly pre-digest the milk with pancreatine before ingestion. But few are capable of doing this. If the digestion is carried too far, the milk will be

made bitter. If too much heat is applied, then the digestive ferment is destroyed and the digestion of the child is disarranged. But only for a short time can cow's milk furnish enough of the lime salts.

Do not starve the osseous and petrous tissues on corn starch, arrow root, baked, bolted wheat flour, or other kinds of starchy food! These may supply the soft tissues, but, as for petrous tissue building, they are no better than distilled water!

There are some eight different kinds of artificial foods for infants now upon the market. Three of them are starch foods; very poor substitutes. Two are malt foods; slightly better. Three are milk foods, which are good substitutes.

No manufacturer claims to have any starch in his special food.

Starches.—The starches are digested by the amylolytic ferments of the saliva, pancreatic and intestinal juices. No infant under one year old possesses enough of this ferment to dispose of pure or a considerable amount of starch in its food. The starches should be converted into dextrine, which this ferment converts into soluble sugar, which is ready for immediate absorption. This conversion is the result of eight or ten hours of baking at a temperature of 350° Fahrenheit.

Malts.—The objection to malts is that these hydro-carbons are so easily changed that the acid condition of the stomach is liable to convert the maltose into a vinous or sour ferment before it reaches the duodenum, and so continue to irritate through the digestive tract.

Milk foods are richer in nitrogenous matter—albuminoids—fat, lime salts; and, if properly constructed and balanced, are much easier of digestion; a very important consideration.

Three of the best infant foods—and each is a milk food—are Carnrick's Soluble Food, Anglo-Swiss, and Nestle's Food.

Carnrick's Soluble Food contains of the albuminoids or nitrogenous matter, 18.22 per cent.; of fat, 5.00; ready digestibility as 16.45 per cent.; salts and inorganic constituents, 2.991; of lime, 0.645, and phosphoric acid, 0.874 per cent. These latter are the petrous tissue builders. Anglo-Swiss, albuminoids,

12.38; fat, 2.37; ease of digestion, 11.20; lime, 0.520; phos. acid, 0.800. Nestle's Food, fat, 4.66; albuminoids, 11.46; digestion, 11.09, which is nearly forty-nine per cent. more difficult to digest than Carrick's; lime, 0.390; phosphoric acid, 0.630.

If an artificial food is to be fed to an infant, the writer would suggest that due consideration be paid to the albuminoids, fat producing qualities and ease of digestion; but, above all these valuable qualities, we are compelled to plead for the full and proper nutrition of the petrous tissues under all conditions of development, and especially from birth to early manhood. If limitation must be had, place it from conception to the twelfth year. From long experience the writer is firmly convinced that a first-class artificial food for infants, if of easy digestion and well balanced in its albuminoids and lime salts that contain a liberal supply of phosphoric acid, as the first-mentioned artificial food does, is superior, as a general tissue-builder, to six-tenths of the nourishment furnished by human breasts! There are no untoward influences upon the child from fretting, worrying, overwork, overheating of the milk, and an insufficient supply of the lime salts.

APHORISMS ON DISEASES OF CHILDREN.

Compiled and translated by
CHARLES EVERETT WARREN,
A. B., M. D., Harv.

From the French of E. Bouchut.

(Continued from the preceding number.)

151. Pulmonary congestion occurring in children of a rheumatic tendency is much more amenable to treatment than in those of a scrofulous tendency.

152. Pulmonary congestion is best treated with cod-liver oil during the summer, with tinctura cinchonæ comp., and arseniate of soda during the winter. Change of air, the sea-shore or the country, is nature's best remedy for city children in this and kindred diseases.

PNEUMONIA.

153. Primary pneumonia is of rare occurrence in infants at the breast.

154. Pneumonia is usually secondary, following simple bronchitis; or a bron-

chitis intercurrent with fever; or an acute febrile disease.

155. Primary pneumonia is usually lobar, while secondary pneumonia is always lobular.

156. Lobular pneumonia is sometimes discrete; sometimes confluent.

157. Pneumonia in children at the breast is almost always double.

158. Lobar or lobular pneumonia occurs in two forms, differing in anatomical lesions, the one, being intra-vesicular, the other extra-vesicular.

159. Intra-vesicular pneumonia, usually primary, leads to congestion and thickening of the cell-walls of the lung and a plastic deposit characterizing red and gray hepatization.

160. Extra-vesicular pneumonia, always secondary, produces only congestion and thickening of the cell-walls, there being no fibrino-plastic exudation to fill the vesicles.

161. Chronic pneumonia, more common in the infant at the breast than in the adult, is always lobar.

162. Pneumonia often engenders the formation of miliary fibrino-plastic granulations in the interior of the lung-cells, in scrofulous children, or the issue of parents tainted with scrofula.

163. The development of lobular pneumonia is favored by the crowding together of children in nurseries and in tenements.

164. Frequent cough, concurrent with fever and labored breathing, intimate an invasion of pneumonia.

165. Groaning and sighing expiration indicates without doubt an attack of lobar or confluent lobular pneumonia.

166. Panting respiration, accompanied by a continual movement of the nostrils, is a sign of pneumonia.

167. Dulness of the chest is, as a rule, but slightly marked in pneumonia of infants at the breast.

168. When dulness of the chest exists in a young child that has a severe cold, pneumonia is to be feared.

169. Dulness of one side of the chest in a young child characterizes pleurisy rather than pneumonia.

170. A suberepitant rale concurrent with cough, fever and difficulty of breathing, is conclusive evidence of confluent lobular pneumonia.

171. A souffle, rare in children at

the breast, usually pertains to lobar pneumonia, sometimes to lobular pneumonia.

172. Bronchophony — reverberation of cries, from the chest, as from a sounding-board, indicates pneumonia of the severest type.

173. An exaggerated, tremulous movement of the thoracic walls, at the moment of crying, indicates pneumonia; while, on the other hand, marked absence of movement indicates the existence of pleurisy with considerable effusion.

174. High or moderate fever, at first continuous, presents many exacerbations in the course of pneumonia.

176. Pneumonia, secondary to simple pulmonary catarrh, often "cures itself."

177. Pneumonia, secondary to measles, scarlatina, or variola, is very grave.

178. Pneumonia in children at the breast is especially grave on account of the complications which precede or follow its development.

179. Pneumonia of children at the breast has a marked tendency to pass into the chronic state.

180. Pneumonia, secondary to the development of miliary, fibrino-plastic granulations, or of tubercles, is usually fatal.

181. Groaning and sighing expiration, accompanied with movements of the nostrils, prognosticate great danger to the life of the child.

182. Swelling and œdema of the hands and feet, during an attack of pneumonia, prognosticate imminence of death. (Trousseau.)

183. The return of the secretion of tears suspended during pneumonia augurs well for the favorable termination of the disease and a speedy recovery.

184. Leeches, blisters on the chest and small doses of ipecacuanha, at brief intervals, simple remedies, usually suffice in the treatment of pneumonia.

PLEURISY.

185. Acute pleurisy, with serous effusion, is very rare in the new-born and in infants at the breast.

186. Absolute dulness in one side of the chest, in a young child, indicates pleurisy rather than pneumonia.

187. Dulness of the chest and absence of thoracic vibration, best ascer-

tained by the hand at the moment of crying, indicate pleuritic effusion.

188. Pleuritic effusion in young children is of grave portent.

189. Pleurisy in young children, passing from the acute to the chronic stage, is fatal.

190. A great amount of effusion, in a young child, should be treated by thoracentesis, using a small trocar for the purpose, with antiseptic precautions.

191. In the second infancy, fever, with dulness of the chest, absence of the vesicular murmur, bronchial or amphoric resonance, friction and rubbing sounds, with œgophony, indicate pleurisy with considerable effusion.

192. Pleurisy of the left side is of graver portent than that of the right, since it crowds the heart to the right, and may thus cause a fatal syncope.

193. In some points, the auscultation signs in acute or chronic pleurisy and in cavernous tuberculosis are similar, since in both amphoric resonance and gurgling sounds are present, with pectoriloquy; but during the course of the disease, the rapid production of the auscultation sounds will serve to eliminate phthisis, as in phthisis the abnormal sounds occur only after a long period of time.

WHOOPIING COUGH.

194. Whooping cough, a modified bronchitis of special character, is due to the influence of a specific, indiscernible, yet irrefutably existent agent, the action of which upon the organism baffles pathologists.

195. Violent fits of coughing, of a sonorous or braying character, mucous expectoration and sublingual ulceration characterize whooping cough.

196. An infant who coughs much and is afflicted with ulceration of the frænum of the tongue probably has whooping cough.

197. Whooping cough is very contagious and often epidemic.

198. Whooping cough, attacking a healthy child, may be aborted and disappear from displacement of the disease and changes in the blood-aeration, consequent upon a change of air and place.

199. Whooping cough sometimes attacks infants at the breast and those of

adult age; but it is especially a disease of the second infancy.

200. Whooping cough is a nervous affection grafted upon a bronchitis, beginning with simple catarrh and ending with characteristic spasms.

201. Whooping cough is more or less severe according to the season of the year in which it is epidemic.

202. Whooping cough, remarkable to say, is of no serious portent, other than from indirect consequences: *e. g.*, vomiting, which follows the violent coughing, may lead to inanition; while fibrino-plastic deposits in the lungs may engender pneumonia, phthisis, etc.

203. Whooping cough is the only disease of infancy where cough is accompanied by true expectoration.

204. An acute disease, intercurrent with whooping cough, diminishes its intensity and causes it to disappear—it may be temporarily or it may be permanently.

TUBERCULOSIS.

205. Tuberculosis of the bronchial lymphatics, very common as a complication of pulmonary phthisis in children, is, on the contrary, very uncommon as a primary disease.

206. In scrofulous children tuberculosis often originates in the lymphatics of the bronchi and chest.

207. No noticeable functional trouble results from tuberculization of the bronchial lymphatics, but if the glands form a mass in the mediastinum of such a size as to compress the important organs placed therein, indirect lesions of these and neighboring organs may result from compression.

208. The most important consequences of mediastinal tuberculosis are: Compressed bronchi, flattening of the large vessels, displacement of the œsophagus and distention of the pneumogastric region, with such functional lesions as may result from compression of vital organs, varying with the organs involved.

209. Œdema of the face, dilatation of the superficial vessels and epistaxis or hæmoptysis, indicate mediastinal tuberculosis, involving the superior vena cava and pulmonary artery.

210. Attacks of asthma occurring in a child that has no lesion of the heart

or lungs are suggestive of mediastinal tuberculosis.

211. A slight, vesicular murmur in one lobe of the lung, coinciding with substernal dulness, may be due to compression of the bronchi, due to mediastinal tuberculosis.

212. If the coexistence of pulmonary phthisis does not cause death by marasmus, tuberculosis of the lymphatic glands may be cured; but, as a rule, death ensues from hæmoptysis, or asphyxia.

HARE-LIP.

213. Hare-lip, simple, or complicated with cleft palate, should be treated by operation as soon as possible after birth.

214. The operation for hare-lip, when performed in infancy, results better, and leaves less deformity than when performed later.

ERUPTION OF TEETH.

215. The first teeth should appear in the lower jaw between the sixteenth and eighteenth months.

216. The first teeth develop later in rachitic children.

217. The lower median incisors, the superior median incisors, the superior lateral and the inferior lateral, appear successively in groups in the order named, in their respective situations.

218. The first molars develop after the incisors.

219. The canines appear after the first molars.

220. Four new molars begin to develop after the appearance of the canines, thus completing the first full set of teeth.

221. A brief period of true rest occurs after the eruption of each group of teeth.

222. The full number of first teeth is twenty; they are called deciduous, being spontaneously shed by the end of the seventeenth or eighteenth year.

223. Deciduous teeth are replaced when lost by new and permanent ones.

224. Sometimes there may be a third dentition, but this is a rare phenomenon.

225. Good teeth and poor teeth are hereditary.

226. Short teeth, of a yellowish-white tinge, are the hardest and most healthy, and indicate a good constitution.

227. Long, white teeth are soft and easily decay.

228. Teeth of a bluish tinge indicate a feeble constitution and are often met with in phthisis pulmonaris.

229. The eruption of the teeth very often brings about local troubles, stomatitis, simple ulcerative or aphthous; and general sympathetic symptoms of the skin, the digestive and nervous systems.

230. Ulcerative stomatitis, due to dentition, should be zealously combated to avoid the development of glandular enlargements in the neck.

231. Diarrhoea due to dentition ought to be arrested before it becomes severe or chronic.

232. It is unreasonable, for the man of science, to put faith in the popular belief that in all cases and at all times diseases incident to the first dentition are without danger.

ANGINA.

233. Inflammation of the fauces, of the tonsils and of the pharynx, accompanied by painful deglutition, known under the name of angina, engenders anatomical changes, which, in the same forms, differ greatly with the individual, giving the disease a benignant or malignant character.

234. Angina may be catarrhal, phlegmonous, ulcerative, gangrenous or membranous.

235. Angina of the ulcerative, gangrenous or diphtheritic type may be benign or malignant.

236. Angina of gangrenous or benign membranous type (croupous), sporadic in character or concurrent with scarlatina of sporadic character, is easily cured.

237. Gangrenous and epidemic fibrinous angina are usually malignant and accompanied with a general state of asthenia, very severe in its character, due to the resorption of septic products, gangrenous or otherwise, formed in and about the eroded ulcerated mucous tissue and in the subjacent cellular tissue.

238. The gangrenous nature of angina is revealed not only by the ulceration of the throat, but by the development of similar lesions upon surface wounds, small black spots of gangrene surrounded by membranous exudations.

[TO BE CONTINUED.]

TRANSLATIONS.

HYPERPYREXIA IN TYPHOID FEVER.—Dr. J. M. Muselli published in the *Journal de Medecine de Bordeaux* some interesting clinical observations on this question, of which we report the following conclusions: 1. Hyperpyrexia is a danger in typhoid fever, from its effect upon the intestines, the heart and the entire organism. 2. The hydropathic treatment, when employed by cold baths, after the method of Brand, exposes the patient to such grave dangers as sudden death, internal hemorrhages and capillary bronchitis. There is a very slight action on the temperature when it is used in the form of tepid baths and warm and cold sponging. 3. Sulphate of quinine loses very quickly its anti-thermic action, since in a few days the temperature lowered for a short time regains its former height. Its action is not always certain, even in enormous doses. Also, the sulphate of quinine, given in large doses, may cause such accidents as trouble with the hearing and headache which disturb the patient and necessitate the suspension of the remedy. 4. Salicylic acid has an uncertain action upon the temperature. Besides, it increases the danger of intestinal hemorrhages and epistaxis. 5. Antipyrine lowers the temperature with mathematical precision. It causes a typhoid fever to run its course with a moderate temperature without exposing the organism to any grave dangers. It is, in the opinion of the author, the best antipyretic medication with which he is familiar.—*Revue de Thér.*

TREATMENT OF PUERPERAL PERITONITIS. *Speilman and Garigotty.*—To limit a puerperal peritonitis, apply from eight to ten leeches, if the patient is vigorous, over the seat of pain; if anæmic from former hemorrhages, apply dry cups. Painting the abdomen with elastic collodion will control the pain. Sulphate of quinine is administered as antipyretic, sedative and antiseptic, in doses from one to two grains every twenty-four hours. Opium, while it relieves pain, also calms general agitation and quiets the peristaltic movements. It should be given in

ternally and by hypodermic injection as often as is necessary to produce the desired effect. As drink, all gaseous waters, champagne, beer and ice, may be administered. Antiseptic lavage of the vagina and the vulva, and, if indicated, lavage of the uterine cavity, must be employed, with a bichloride solution. The author abstains from the start from calomel, bleeding and purgation, which, by increasing intestinal contractions, increase the generalization of the peritonitis.—*L'Union Médicale*.

TREATMENT OF DIPHTHERIA.—The treatment of Dr. Morot (of Vichy) has been remarkable the past year. It consists in repeated hepatic revulsions. Numbers of practitioners have tried this therapeutic novelty, and have obtained the most remarkable results. The following was written to Dr. Morot by Dr. Armat, the most distinguished physician of Madrid, where this disease is most fatal:

"Since receiving your brochure I have tried the treatment recommended by you, and am impelled to tell you that it has given me the best results. I say best, for out of twenty-seven children attacked with diphtheria, and given into my care, I have had the happiness to save sixteen. This mortality appears terrible; but it is not, when it is known that all the children (and I have treated many in the course of my career), all the children, I repeat, who have been previously attacked by this frightful malady are dead. It is needless to say that always obtaining such sad results, impelled both my conscious and professional *amour propre*, I struggled to save at least one of these little sufferers. So that when I read your brochure I have tried it with enthusiasm, and I have obtained at last most admirable results.—*Revue de Thér.*

PRECOCIOUS DIAGNOSIS OF PHTHISIS.—Dr. R. Serrand says that in patients destined to phthisis pulmonalis there are always some well marked pharyngolaryngeal signs which precede the pulmonary symptoms. These signs are three in number:

1. Pharyngeal anæmia. The pharynx is a pale, colorless white, instead of its normal color.

2. Defective approximation of the inferior vocal cords, from atony of the constrictors.

3. Localized congestion of arytaenoidal mucous membrane, showing by a swelling and a cherry red coloring of that region.

These three signs can exist together or singly. The existence of one is strong presumption in favor of approaching tuberculosis. Every time the physician finds them together the prognosis is certain. The pharyngeal anæmia, failure of the contractibility of the inferior vocal cords, the congestion of the arytaenoidal region, signs which have nothing in common with laryngeal phthisis, are the *avant coureurs* of pulmonary consumption. The physician who can read the larynx of his patient may save him from many evils, for he can use prophylactic measures, and arrest phthisis in its incipency.—*Revue de Thér.*

TALC IN CHRONIC DIARRHŒA.—M. Debove has administered powdered talc in doses of from 200 to 600 grammes a day, diluted with milk, with complete success in the chronic diarrhœa of tuberculosis. An obstinate constipation succeeds the diarrhœa, which enables the patient to be put upon a rich and nutritious diet. The talc is eliminated in twenty-four hours, and, owing to its lightness, is readily expelled, with slight contractions, even in dilated stomachs.—*Revue de Thér.*

ELECTRICITY IN PHTHISIS.—In some experiments with electricity in phthisis, which were followed for many months upon seventeen patients, Dr. Danion concludes, first, that humid electrization of the chest is without any action on the progress of phthisis, as soon as the symptoms of the second period appear; second, electricity constitutes an excellent resource in hemorrhages.

—*Revue de Thér.*

USE OF NAPHTHOL IN GASTRIC DISTURBANCE.—In a case of gastric disturbance accompanied by high fever, Comby reports great benefit from the employment of naphthol in doses of thirty-seven and a half grains daily, as recommended by M. Bouchard, as an intestinal antiseptic. This drug, while

having no effect in cancer of the stomach and in Bright's disease, was well borne and produced marked benefit in febrile gastric troubles accompanied by bilious vomiting. It appears to be most efficacious in those cases where the disturbance depends on abnormal fermentation in the digestive canal.

—*La France Medicale*.

SIMPLE TREATMENT OF ITCH:

R Animal fat.....	125 grammes
Benzine.....	30 "

Three or four frictions with the above ointment, followed by an alkaline bath.—*Revue de Ther*.

TUBERCULOUS HÆMOPTYSIS.—(Chauvin and Joriserine).

R Iodoform.....	gr. $\frac{3}{4}$
Extract of gentian or of liquorice, q. s.	

Take three to five pills per diem.

Or better:

R Iodoform.....	gr. $\frac{3}{4}$
Tannic acid.....	gr. $\frac{1}{4}$
Excipient.....	gr. $\frac{1}{4}$

In an interesting work the authors form the following conclusions: Iodoform is a powerful and rapid hæmostatic remedy. Relapses are rare. Iodoform has relieved where ergot has failed.—*Revue de Ther*.

TREATMENT OF MENINGITIS IN CHILDREN. (*H. Pierron*).—1. Keep the bowels open by calomel taken in the morning.

2. Apply fly-blisters to the head.

3. Rub the thighs and groins with Neapolitan ointment three or four times a day.

4. Give of the following prescription a teaspoonful every half hour to a child of two years:

R Bromide of potass.....	3 grammes.
Iodide of potass.....	0.60 "
Tincture of musk.....	10 drops.
Syrup of quinine.....	30 grammes.
Aromatic water.....	120 "

Apply leeches to the mastoid process.

—*Revue de Ther*.

MIGNONETTE AS A VERMIFUGE.—A very strong decoction of the dried flowers was administered to a woman afflicted with tapeworm, fasting, and was followed by a large dose of castor oil. Three hours after the worm was

expelled. In Russia the mignonette has always been held in high repute by the people as a taenicide.

—*Russkaia Meditzina*.

AORTIC AND EXOPHTHALMIC GOITRE.—

M. Rendu reports the case of a young girl of 28, daughter of gouty and arthritic parents. At the age of 18, as a result of some painful accident, she had some chlorotic symptoms which reappeared every spring. At the beginning of 1887 she had pain in the left shoulder in climbing stairs, then palpitation and the pains of angina pectoris. At the end of 1887, he found at the base a double aortic murmur. A blister was applied, and some weeks of iodide treatment, to render the breathing easier, caused the symptoms of angina and the diastolic murmur to disappear. But as soon as, and in proportion as, the aortic murmur disappeared, all the symptoms of exophthalmic goitre appeared, even the hypertrophy of the thyroid gland. M. Rendu pointed out in this case, on the one side, the cure of the aortic murmur by iodide of potash, on the other the probable influence of this medicine upon the establishing of Basedow's malady.

M. Fereol thinks that the moral state is more the cause of Basedow's disease than iodide of potash.

M. Rendu remarked that in his case the moral trouble ran back ten years, and that when he had charge of the case for the aortic trouble there was no nervousness.—*Revue de Ther*.

INFLUENCE OF TEA-POISONING UPON SYPHILIS. *Smirnoff*. In Siberia, the tea dealers are frequently obliged to taste two hundred samples of tea per day. These men present symptoms of intoxication, with loss of taste and smell. Frequently they are obliged to retire from the business to regain their taste, which is indispensable in the detection of the different qualities of tea. Digestive troubles ensue, with loss of appetite and general feebleness. Atrophic cirrhosis of the liver and pains in the epigastrium follow. The skin becomes dry and yellow. The functions of the nervous system are weakened. The patient

becomes hypochondriacal. The memory fails as well as vision. It is not yet known whether all these toxic symptoms are due to the alkaloidal principle of tea, or to other properties of the plant. It is amongst these men that the author has observed great obstinacy of syphilitic symptoms. He asserts that he has never seen such grave forms of syphilis of the brain and bones in France, Germany or Austria, as amongst these Siberians. It is necessary then to believe that the poison of tea renders the organism less susceptible to anti-syphilitic remedies. The author submits his patients at first to a treatment consisting of alkaline waters and sulphur baths, for eliminating the tea-poison. Under the influence of this treatment, many rebellious cases yielded rapidly. The author cites a case of cure of syphilitic ulcers upon the dorsum of the foot which had been treated unsuccessfully for two years by the anti-syphilitic means of the English, Thibetan, Mongolian and Chinese physicians.—*Bul. Gén. de Thér.*

ERGOTINE IN AGUE.—Yarochevski announces that having thoroughly tested ergotine as a substitute for quinine in intermittent fever, he is convinced of its uselessness in that disease. In 24 cases, he could mark no influence from the drug upon the course or duration of the disease.—*Bul. Gén. de Thér.*

TREATMENT OF HYSTERICAL-EPILEPTIC HEADACHE.—M. Féré Brequet has already shown the advantages of compression in hysterical headaches. It is proposed to make that compression with a cap weighted with shot. Compression so made often relieves the pain, and sometimes in hysteria prevents convulsive attacks.

—*Revue de Ther.*

ACETANILIDE IN GRAVE FORMS OF CONFLUENT AND HEMORRHAGIC SMALL-POX.—H. Haas reports seven cases of variola in which the symptoms were very grave, with high secondary fever. Having failed to produce any beneficial results with quinine and antipyrine, he used acetanilide in doses of from one-half to two grammes per day. The results justify him in con-

sidering the drug a most useful antithermic in variola. Administered in small doses, it moderated the evening exacerbations and diminished the severity of the nervous symptoms. The remedy, by its anæsthetic properties, relieves the patient of much distress, and does not exert an unfavorable influence on the digestive functions.

—*Bul. Gén. de Thér.*

DISTILLED TAR WATER IN THE TREATMENT OF HEMORRHAGES. *Corneille Saint Marc.*

The author has administered distilled tar water in a large number of cases. The results of his observations are that the products constitute an excellent hæmostatic, whose properties present great analogy to those of hamamelis Virginica. He concludes that tar water, prepared from wood tar, constitutes a medicine with incontestible tonic, astringent properties. Administered internally it arrests surely and rapidly hemorrhages of the lungs of congestive origin, of the uterus and the kidneys. It offers the surest and most prompt means to arrest the hemorrhages of the first two periods of pulmonary tuberculosis. The dose is from forty to sixty grammes in twenty-four hours. He has never had the least bad result to follow the use of this remedy.—*Revue de Thér.*

HOSPITAL NOTES.

PENNSYLVANIA HOSPITAL.

SERVICE OF THOS. G. MORTON, M.D.,

One of the Attending Surgeons to the Hospital.

INTERESTING AND RARE SPECIMEN OF GUN-SHOT WOUND OF THE HEART.

A. K., a middle aged, well nourished man, of intemperate habits, was brought into the accident ward at midnight, January 11, having received a gun-shot wound of the chest about twenty minutes previously, and from his appearance it was believed that his heart had been wounded. Upon examination, the wound of entrance of the ball (which had been fired from a bull-dog pistol, 32 calibre) was discovered to the left of the median line, slightly above the level of the nipple, and about one inch to the inner side.

The wound was a penetrating one, and its general direction as ascertained by the probe was inward, downward and backward. The patient was in a state of profound shock, although he had not lost much blood externally. The radial pulse was almost imperceptible; the heart's action was accelerated, but regular, and the resident surgeon reported that its sounds could be heard distinctly upon auscultation when he was admitted. Death occurred at 5 o'clock A.M., or about five and a half hours after receiving the injury; the fatal result was thought to be due to shock and internal hemorrhage. Upon *post-mortem* examination, under the supervision of the coroner, we found a moderate quantity of blood in the pericardium, which had been traversed by the bullet; the heart was also wounded, as I shall presently show you; the upper surface of the left lobe of the liver also showed a wound running into the organ, and a probe introduced along the track passed through into the gall-bladder, in which the ball was found.

In the specimen of the heart now before us, it is seen that there is a wound in the right ventricle, and when I introduce a probe it passes, without any force, directly through the wall of the right ventricle, lifting up a small bridge of tissue between the wound of entrance and exit; the ventricle has also been opened by the ball, but the wound is comparatively small. We would expect if the ventricle should be opened that there would be immediate and abundant hemorrhage into the pericardial sac, but in this case the contraction of the muscle and the shape of the wound prevented any large escape of blood. After leaving the heart the bullet changed its course, either having been deflected by striking a rib or by the movement of the heart, and passed through the liver from the upper to the lower surface, passing through the left lobe almost transversely, entering about the middle of its upper surface; the probe passing through into the gall-bladder, where the ball was found.

Of course in such cases nothing could be done; the wound is necessarily mortal. Wounds of the heart, however, do not necessarily mean death, and if this man had not been otherwise injured in

his liver, the ball passing from the chest to the abdomen, he might have recovered. I now recall the case of a boy employed in a drug store who was stabbed in the chest, the blade of the knife being directed upwards and inwards. There was considerable hemorrhage from an intercostal artery. The left ventricle was wounded; for I introduced my forefinger directly into the pericardium and distinctly felt the wound in the heart. I thought then that the boy must necessarily die, but he was taken in an ambulance to the hospital, and in two months was perfectly well. Injuries of the heart are not immediately fatal as is generally thought. I have known a case where a bullet was carried in the heart for five or six weeks. Patients may recover perfectly after perforation of the heart and penetration of its cavities.

A remarkable case is reported by the *Bulletin Medicale* from Constantinople. Dr. Siotis had a patient who had swallowed fifteen pieces of gold. He complained of violent pains in the stomach. Upon auscultation one distinctly heard the rattling of the money. Some purgative medicine administered at once gave no result. He was then given pills of laudanum and belladonna. The next morning three pieces were found in the excrement, and a cylindrical tumor could be felt in the rectum, which was very painful. Four pieces were passed, and severe pain was felt in the iliac fossa, where percussion gave a metallic sound. The rest of the money soon followed, and the patient made a complete recovery.

The case is interesting from the quantity of the objects swallowed, and also from the fact that where purgatives were useless laudanum and belladonna gave the best results.

DR. GARRETSON'S PARADIGM.

1. A mushroom.
2. Put into the pocket and carried to the city.
3. Cooked, eaten, correlated into self, going about as part of self. Finally, in the metamorphosis of tissue, dematerializing, or giving place to fresh material.

The above is the editorial analysis. We pass it on.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, AUGUST 1, 1888.

EDITORIAL.

DOCTORS' QUARRELS.

OUR British cousins can hardly find fault with us if a little acerbity infuses itself into our professional squabbles. On one page of the *British Medical Journal*, three gentlemen pay their respects to Mr. Lawson Tait with a vigor which relates with the New World rather than with the effete monarchies of Europe. Milne Murray adverts to Tait's admission that he (Tait) is not an electrician, and sarcastically adds that the great ovariologist proceeds to make that fact clear beyond all dispute.

W. Woodham Webb notes the same damaging admission, and draws from it the very direct deduction that Mr. Tait should therefore have kept aloof from a discussion of matters electrical.

Even the peaceable Playfair is stirred up to make a retort quite in keeping with Mr. Tait's letter to him.

We regard Lawson Tait as a most valuable man to his day and generation. He has started and kept up more discussion, stirred up more controversy, engendered more animosity than any other man in the profession. Take out of the medical journals all that pertains to this bumptious Briton and how much of their interest will disappear. His doings, his sayings, the question of whether he really does what he says, the vigorous way in which he pitches into his numerous enemies and their funnily ineffectual efforts to squelch him, and his curious faculty of arousing the gall in all who come under his malefic influence, render

him of the utmost value in brightening the dull pages of the medical periodical. If ever a man deserved the good will of that powerful body, the Association of Medical Editors, it is Lawson Tait.

We are by no means sure that doctor's quarrels are wholly objectionable. Mutual admiration societies are execrable; where one member reads a paper and the rest take turns in complimenting him, *ad nauseam*. Societies conducted on such principles languish and die. But if some sturdy free-thinker tells the reader his paper is rubbish, and goes to work to demonstrate the truth of his remark in forcible manner, with enough acrimony to arouse the "Irish" of his opponent, what a difference! Then, the physician hurries through his office business in order to be at the meeting in time to "see the fun," or take a hand in it.

It is to be regretted that the purely scientific meetings of our societies are apt to be but languidly conducted and poorly attended; while a contested election brings out the membership in force.

We like to hear a man who has the courage of his opinions; who has settled beliefs and is ready to maintain them. And although it may be said that personalities are out of place in the discussion of scientific subjects, yet if there be sufficient acrimony in the controversy to incite the contestants to do their best, to search deeply into their subjects and to marshal their arguments in logical array, it cannot but prove beneficial.

It is a matter of regret that so few of the city clinics are open during the summer months. The diseases of this season are of the greatest importance to the physician; especially cholera infantum and sunstroke, which are not to be shown in the clinics during other seasons.

LONDON LETTER.

J. MILNER FOTHERGILL.

IN my last letter I mentioned that Dr. Milner Fothergill was dangerously ill. After a temporary rally, coma supervened, and he died on June 28. He had long suffered from glycosuria, of which he rather made light; and certainly his robust habit of body rendered the idea that he was the subject of so serious a form of disease as diabetes almost absurd.

John Milner Fothergill was born on April 11, 1841, the son of Dr. Fothergill, of Morland, in the county of Westmoreland; and on both sides his ancestors were "statesmen," a term applied to the yeomen of Cumberland and Westmoreland. The family had furnished two other notable men to the medical profession: Dr. John Fothergill, F.R.S., a London physician well known in the last century, and Dr. Anthony Fothergill, of Bath, the founder of the Fothergillian gold medal of the Medical Society of London, which was won by his collateral descendant, Milner Fothergill, in 1878, by an essay "On the Antagonism of Therapeutic Agents, and What it Teaches." Richard Burn, D.D., who wrote a history of Westmoreland and Cumberland and the well-known guide of magistrates, "Burn's Justice," was a collateral ancestor on the maternal side. Though other famous churchmen sprang from these statesmen families of Fothergill and Milner, there were also many doctors of medicine as well as of divinity; and it was the appointment of a cousin, Sir John Hall, to be surgeon-general of the army in the Crimea which fired young Milner Fothergill's ambition, and determined him to enter medicine rather than the church. He was accordingly apprenticed to his father, who seems to have been a typical north country man, distinguished by shrewd common sense, possessing a sound knowledge of medicine and a sincere love for the profession. He sent his son to Edinburgh University. I do not know whether young Fothergill was a diligent student; but have a shrewd suspicion that he was not. At any rate, he did not receive any of

those rewards which fall to the lot of pupils whom professors delight to honor. On the contrary, when he was compelled by the ill health of his father to return to his native village in the wilds, he would appear to have been a young man distinguished only for his boisterous spirit and racy north-country talk. The next four years spent in working his father's practice, and reading his father's library through again and again, worked a change in his character and mode of looking at life. When we next catch a sight of him, he is the senior resident medical officer of the Leeds' Public Dispensary, working hard in that office and rapidly earning distinction: the first public recognition of his merits being the receipt of the Hastings' gold medal of the British Medical Association for an essay on "Digitalis, its Mode of Action and its Uses." Encouraged by this, he gave up his Leeds appointment and went for a winter to Vienna, where he gave most of his time to pathology. He also visited Berlin, where he was much impressed by the teachings of Traube. It was while he was under these influences, and in great part while actually in Germany, that he wrote "The Heart and its Diseases, with their Treatment." It was severely criticised, and not altogether undeservedly; for its author confessed in later years that it contained many crudities, and on the title-page of the second edition, published in 1879, he put the motto: "Without change of opinion, there can be no advance in knowledge."

Dr. Fothergill became assistant-physician to the West London Hospital, a small general hospital then almost suburban, but now rendered thoroughly urban by the advancing wave of houses which has swallowed Hammersmith and is sweeping over Chiswick. He was also appointed assistant-physician, and subsequently physician, to the City of London Hospital for Diseases of the Chest, Victoria Park. Of other distinctions of this kind he received none, and in estimating the degrees of success which he attained it must always be remembered that he was never connected with a medical school. As a teacher and as a consultant, he was therefore under serious disadvantages,

against which he struggled manfully, though not always very judiciously. He had perhaps inherited from his theological forebears a love of controversy and considerable skill in its conduct. From the time of his first settlement in London he wrote much for the medical press. He would probably have been in his element as the editor of an untrammelled medical journal. As it was, he often had conflict of opinion with his editors, who were a little afraid of his trenchant paragraphs. He vehemently attacked the governing body of the Royal College of Physicians, and was never elected a Fellow of that college. He also engaged in a controversy with the executive of the British Medical Association. Of late years, however, he had grown much less combative, probably because his interest in "medical politics" declined as his practice increased and the offers of publishers grew more tempting. In 1876 he published "*The Practitioner's Hand-book of Treatment; or, the Principles of Therapeutics*," a suggestive, practical work, written in an easy style. The best of his subsequent studies is shown by the title of his next work, *Indigestion, Biliaryness, and Gout in its Protean Aspects*. This title gives a hint of the source, both of his strength and his weakness, as a medical writer. In his *Diseases of Sedentary and Advanced Life*, he made the somewhat risky experiment of addressing a mixed audience, lay and medical; few men could have done it so successfully.

Dr. Milner Fothergill's early death removes from the medical life in London a very well-known and very characteristic personage. His massive figure was to be seen at most social gatherings, and his racy talk made him a centre of attraction on such occasions. He had an inexhaustible fund of stories which he told inimitably, giving the broad north-country accent as can only one to the manner born. As a companion he was always entertaining and courteous. Though so excellent a talker himself, he was not a monologist, but was disposed to encourage others to talk, appearing only to fill in the gap in the conversation, though really leading it. He took a pride in all his literary work, and expended great care

upon even the smallest details. He was fond of talking about his work, and one could generally guess the topic of his next work by observing the direction in which he directed conversation. These notes on his life, inadequate as they are, have already extended to a greater length than I had intended; but to those who knew him, Dr. Fothergill was a most interesting character, not only as a physician, but as preserving in the burly figure, the incisive speech with its northern burr, the frank manner, and the independent bearing, some of the characteristics of the race of "statesmen" who are rapidly passing away—all the little excrescences which gave a piquancy being smoothed away by the smoothing-iron of modern "civilization and education," falsely so-called.

ELECTROLYSIS.

The debate on electrolysis as a means of treatment of diseases of women, at the Obstetrical Society, was very lively on the second day. Of the four papers by which the subject was introduced, that by Dr. John Shaw appears to have contained the most original matter. He had made some experiments on a fibromyoma twelve hours after removal, and had studied the effect of the constant current, in intra-uterine applications and punctures, on the circulation, temperature, sensibility to pain, and urinary excretion. He concluded that the constant current produced only slight electrolytic changes, and that the beneficial effects of the current were to be traced to the hæmostatic action of the positive pole, the derivative influence of the negative pole, and the effect on the arteries, which was a narrowing of their calibre which led to diminished nutrition and some alteration of the relations of the fluid and the solid elements. Dr. W. E. Stevenson, who has had considerable experience with the constant current, appeared to regard it as merely an elegant form of cautery, and Dr. L. Drage reported favorable results in some patients of his treated by Dr. Stevenson for chronic cervical catarrh. The majority of the subsequent speeches were critical, and some very hard knocks were given on both sides. Dr. Bantock, in particular, condemned in

strong terms the exaggerated claims which had been set up for electrolysis, and hinted that the large fee charged for an application (twenty-five guineas) was not without its influence in determining the preference of certain gynecologists for the method. A somewhat lively scene ensued when Dr. Bantock, on moral grounds, commented adversely on the way in which the treatment had become the fashion of the day, and compared the claims made for it to those put forward by the proprietors of Holloway's, Beecham's, Corkle's, or Widow Welch's pills. Dr. Playfair had, however, already spoken in a moderate tone about the method, and praised its action in bleeding fibroids very highly. In some cases under his care, hemorrhage had not recurred; in others only for a time; but in one only had it done no good. He spoke with more caution about the treatment of non-hemorrhagic fibroids by puncture and the negative current. He considered it a questionable and dangerous method, the more so as few of the cases required any treatment. He mentioned two in which he had used it, and in both with success, and urged that electrolysis as a therapeutic agent ought not to be rejected until it had been thoroughly tried. The President (Dr. John Williams) delivered a slashing attack on Dr. Apostoli, and severely criticised the statistics put forward by Dr. Carlet, Dr. Apostoli's pupil. Examining the cases then published he expressed the opinion that in more than fifty the disease was subinvolution or chronic metritis only, and that the statements with regard to genuine cases of fibroid were inconclusive, as in none did any alteration in size take place greater than is known to occur as a part of the cyclical changes of fibroids. Dr. Champneys insisted very strongly on this point—the extraordinary spontaneous variations in the size of fibroids—and darkly hinted that he could a tale unfold of wide-spread suppuration, of septicæmia, and of death, whose lightest word would harrow up our souls and make each particular hair to stand on end, like quills upon the fretful porcupine.

BRITISH HEALTH SYSTEM.

Two recent occurrences have brought

into prominence one of the weak points in the British health system; it has often been the cause of trouble in the past, and, until the difficulty is fairly met by legislators, will constantly operate to diminish the efficiency of the public health service. The Medical Officer of Health of a rural or urban district ought to be a thoroughly trained sanitary expert, ready to discharge his duties without fear or favor; and that we still fall short of this ideal is due partly to the smallness of some of the districts and consequent inadequate payment, and partly to the absence of any approach to fixity of tenure. The occurrences to which I refer illustrate the one the first, and the other both of these faults. Five years ago, Dr. Heine, who had been in practice in Sheffield for sixteen years, was appointed Medical Officer of Health for Bradford, and has since discharged his duties with energy and disinterestedness, as even those who have recently opposed his re-appointment admit. It is one of the disadvantages of representative government that the persons who seek election on sanitary and other committees are those who are practically interested in maintaining things as they are. Dr. Heine was a little too impartial in his recommendations and condemnations, and in consequence the Sanitary Committee recommended the Town Council not to re-appoint him, and he is now deprived of his office and his income, and obliged to commence life afresh. The evil of very small sanitary districts has been long recognized, and the policy of the Local Government Board has been to encourage combination; the greater part of Gloucestershire was thus combined into one district, of which Dr. F. T. Bond was Medical Officer; one sub-district has now seen fit to withdraw without reason assigned, and the combination is broken up.

COCAINE.

Cocaine has been recently recommended by Dr. Lauder Brunton and others in the symptomatic treatment of abdominal pain; one grain three times a day generally produces the desired effect; it appears to be especially indicated in intestinal diseases where it is desired to relieve pain without interfer-

ing with the action of the bowels. As Dr. Brunton suggests, this analgesic action of cocaine may account for the preference which many physicians have for cocaine over morphine in the treatment of abdominal pain. Berthé has shown experimentally that the drug has a specific action on the sympathetic and greatly lessens the irritability of the intestine. Its high price appears to be a serious obstacle to general use.

MEDICAL ETHICS.

We are often told that it is most improper for a medical practitioner to allow his name to appear too frequently in the public press as doing this or that, and on the whole the leaders of the profession in London set a good example. A highly curious exception is afforded by an engraving in the *Graphic* this week, which depicts a scene, imaginary, no doubt, at the *conversazione* given by the Royal College of Physicians, the week before. The scene is itself highly comic, for it represents Sir Andrew Clark, the president, introducing Sir James Paget to the vice-president, Dr. Handfield Jones—two gentlemen who must have known each other any time these thirty years.

HOSPITAL SUNDAY FUND.

Hospital Sunday Fund is again only very moderately successful this year; the whole of London has contributed only £37,375, which is about one penny a head all round. There can be no doubt but that the individual hospitals could have obtained in the aggregate a much larger sum from the same pockets, but for the well meant, but mischievous, interference of this committee.

The appointment of a young Edinburgh surgeon, Dr. A. W. Hare, to the chair of surgery in the Owen's College, in opposition to several strong local candidates, appears to have given much dissatisfaction in certain quarters. The students have held an indignation meeting. I know nothing of the reasons for the appointment, or of any local grounds for objection; but it is easy to lay too much stress upon the possession of "lecturing powers," and any event which tends to make surgical professors educational specialists, as anatomical and physiological professors have

become educational specialists, is to be lamented.

Lord Randolph Churchill has taken up the cause of the members and fellows of the Royal College of Surgeons of England, and has given notice of motion for an inquiry into the constitution of the college. If he is in earnest, he is pretty sure to get his commission.

DAWSON WILLIAMS.

ABSTRACTS.

LEUCOCYTES AND MICROBES.—Some interesting observations have recently been made on the attitude of the corpuscles contained in the lymph of frogs, towards microbes, and towards the *bacillus subtilis* in particular. A regular fight takes place between the leucocytes and the bacilli. When they come into proximity, the white corpuscle extends itself, and grasps one end of the bacillus, to which it imparts a lateral movement. Gradually it elongates itself, and envelopes the bacillus in a tube of protoplasm, other leucocytes come to the help of the first, and the bacillus is absorbed and destroyed. The number of bacilli which a single leucocyte can ingest does not seem to be limited. Its voracity has no bounds. Some have been seen to devour from forty to sixty bacilli, and have been so stuffed with them that the homogeneity of the protoplasm was interfered with. As a rule, however, after consuming some five or six of the invaders, the leucocytes take a period of repose followed by a renewal of activity. The observations by M. Gallemerts on the *bacillus subtilis* coincide with those of M. Metschnikoff on the *bacillus anthracis*.

—*Med. Press and Circ.*

TUBERCULOSIS TRANSMITTED BY THE MILK OF A PHTHISICAL COW.—A remarkable case has been recorded by Denune, of Berne, in which an infant became infected with tuberculosis through the milk which had been obtained from a phthisical cow. The details of the case are as follows: An infant, aged four months, belonging to a family whose history was absolutely negative in regard to tubercular affections, died of tuberculosis of the mesen-

teric glands, a fact which was confirmed at the post-mortem examination. The glands alone contained the characteristic bacilli; the latter were not even to be detected in the intestinal mucous membrane, and no bacilli were found in any other part of the body. The child was fed with the milk of a cow which was especially kept for the purpose. The cow for the purposes of examination and inquiry was slaughtered, and a careful post-mortem made of its carcase. The left lung and pleura of the animal were found to be studded with tubercle, and in the tubercular nodules bacilli were easily found. The milk was then submitted to a minute investigation, but bacteriological examination at first yielded negative results. Finally, however, tubercle bacilli were detected in portions of the liquid expressed from the deepest parts of the mammary gland. The case is an important one from several points of view, and claims attention by reason of its bearing upon the so-called hereditary transmission of tuberculosis. If, instead of a human infant, a calf had in a natural manner fed itself with milk from its mother's udders, we can hardly conceive otherwise than that the calf would have similarly become infected with tubercle. Assuming such to have occurred, the case would obviously have been regarded as one of the hereditary transmission of tubercle. But taking the supposition that a woman suffering from phthisis suckles an infant, there seems to be no reason why the same result should not occur, and why, like the infant and the cow, to which reference has been made, the mother should not transmit the bacilli by means of her milk to her offspring. All this appears to be possible enough, and has, perhaps, even occurred in some cases without the fact having been proved by demonstration.—*Medical Press and Circular*.

THE PREMONITORY SIGNS AND TREATMENT OF HEPATIC DISEASE.—Dr. Myrtle makes the following statements on this subject: He has observed an almost constant metallic taste, and with this coppery taste the patients very commonly noticed that their linen was dyed orange color by their urine. A common sensation was an unnatural craving for food, when there should have

been no such desire, shortly after a meal. This was so intense that it amounted to gnawing and must be satisfied. Everyone knows how the temper is affected by the state of the liver, but the mental faculty which is most inconvenienced is the memory, as regards matters important and trivial. The last symptom is a sense of weariness and weakness in the muscles of the lower extremities; they feel quite unequal to the most moderate work, and after it ache as if they had been overstrained the day before. As regards treatment, he pins his faith to mercurials, saline purgatives, diet and warmth. Of all purgatives he prefers natural mineral waters, and while admitting the power and value of many of the foreign springs, after much experience of their use, he can, with perfect good faith, affirm that the strong sulphurous springs and baths of Harrowgate are administered in the great majority of functional disorders of the liver and digestive organs with quite as much success and lasting benefit as are those of any country.—

The Provincial Medical Journal.

THE SENSITIVE RECTUM.—Painful hysterical spasm of the rectum is a most common neurosis, says Dr. William Goodell in *The Medical Standard*. Another rectal neurosis is the "jealous" rectum, which puts a veto on social intercourse. One lady was in a perfectly comfortable condition until she put on her bonnet, when this unruly organ would remonstrate audibly and continue until the unfortunate possessor would be compelled to take off her bonnet and make up her mind to stay home. After this everything would become quiet. Another lady always began to have an evacuation from the bowels as soon as she received a letter from her husband, and was obliged to delay reading it until the rectal demands had been satisfied. A third would soil her bed after any violent mental emotion. All were kept prisoners at home, and had to abandon social intercourse. A third form is "follicular colitis," or "membranous enteritis," which is often a hysterical neurosis.—*Medical Record*.

DETECTION OF PUS IN THE URINE.—Drop into the specimen of urine enough

tincture of guaiac to give it a milky appearance, and heat it a few minutes to 100° F. If pus is present a blue tint will develop. Otherwise the urine may be passed through a white filter, on which is then allowed to fall a few drops of tincture of guaiac, producing, if pus is present, a distinct blue coloration.—

Pharmaceutical Era.

ORIGIN OF SIMPLE ULCERS OF THE STOMACH.—An evident correlation, M. Letulle asserts, may be observed between the evolution of an infectious malady and the development of ulcerating lesions in the stomach and intestine. At the necropsy of a case of puerperal septicæmia two recent hemorrhagic ulcerations of the stomach were found. The subjacent venules were thrombosed; and the fibrinous clots contained a large number of streptococci, and the venous sinuses were stuffed with colonies of the same micro-organism. Experimental proof has been forthcoming, on the guinea-pig, of the production of mucous and submucous lesions, not only with pure cultivations from cases of dysentery, but also with the staphylococcus pyogenes aureus. The lesions have ranged from ecchymoses to vast rounded ulcerations threatening perforation of the experimentally dilated stomach. It is thought that some cases of simple ulceration of the stomach and duodenum may be ascribed to local growths of micro-organisms.

THE TREATMENT OF ULCERS.—Since Dr. Grossich published the results of his experimental researches in the treatment of ulcers with phosphoric acid, the same *rationale* has been pursued with the "acid phosphate" solution of Professor Horsford with marked success. By his method of treatment Grossich uses a 10 per cent. solution of acid in distilled water. The ulcer is covered with a bit of lint dipped in this solution, and the dressing renewed three or four times a day. The patient for the first few minutes feels a slight burning sensation, but this soon passes, and within twenty-four or thirty-six hours the ulcer cleans, and looks better. Inflammation or eczema of the surrounding parts disappears, and all pruritus ceases. The ulcer cicatrizes rapidly, and the cicatrix is firm and healthy.—

Medical Press and Circular.

CHLORIDE OF SODIUM has a wider range of use in medicine than many are aware of. As a remedy for anæmic conditions it is recommended in a daily dose for an adult of 150 grains, in addition to what is ordinarily taken with the food. Bouchardat says that well salted meat diminishes the thirst of diabetic patients and lessens the excretion of sugar. Nothnagel recommends an epileptic patient to carry salt with him and swallow a quantity at the first sign of the *aura*. Rabow gives a half teaspoonful in migraine or sick headache—cures in half an hour. With some patients it is an infallible remedy. Salt is antidotal to nux vomica, curare, and to lead and silver salts. It should not be given for some hours after administering calomel. Salt counteracts the depressing effects of saline laxatives.—*Drug Topics.*

EXTRACTION OF RENAL CALCULUS.—M. le Dentu related a case of extraction of renal calculus. A man came to him with all the symptoms of the affection, and seeking relief. M. le Dentu, acceding to his desire, performed the usual operation. He incised the teguments parallel to the twelfth rib. The kidney was rapidly brought to view, and with the finger the foreign body was plainly felt in the region of the pelvis and extracted by a transverse incision. After an antiseptic washing the wound was closed by a catgut suture, and in the space of four days the urine ceased to contain traces of blood. At the end of a month the patient left the hospital cured. Already M. le Dentu had practised four nephrolithotomies, only one of which had ended fatally.—

Medical Press and Circular.

DR. HOFFMAN has read a remarkable paper in Dresden on the distribution of the tubercle bacillus by flies. He had found that these insects collected the micro-organisms from the sputum of phthisical patients and discharged them again with their excreta. He had conducted some experiments which showed that in a room inhabited by patients suffering from advanced pulmonary tuberculosis four out of six flies

caught were found to contain the bacillus in their intestines. *Mem.*—The newest remedy for consumption: Abstain from eating flies or their excreta, and bottle up all phthisical sputa.

TYPHOID FEVER has, upon the whole, diminished both relatively and absolutely. In 1886 the percentage of deaths from typhoid fever from all causes was 2.15; in the year of greatest prevalence, within a period of twenty years—1872—the percentage of deaths from typhoid to deaths from all causes was 4.86 and the death-rate per 10,000 living was 11.1. The diminution in the death-rate from this disease has been especially marked in cities with new water-supplies and good systems of sewers. The death-rate from this cause is substantially unchanged in small country towns. The death-rates from typhoid fever per 10,000 living, in the census years 1865–1885, have been for the state: 1865, 13.4; 1870, 9.1; 1875, 6.4; 1880, 4.9; 1885, 3.9.—*Medical Record.*

OF THE MUCH-ADVERTISED OPERATIONS for transplantation of the cornea, *The Lancet* says: "This operation has been frequently performed, but hitherto without permanent success. Various cases have been recorded by Messrs. Power, Sellerbeck, and others, in which the new cornea taken from cat or dog, the eye which is preferable to that of the rabbit, has formed adhesions and retained its transparency for some days or weeks, but sooner or later the new cornea becomes hazy, contracts to a button, and is finally absorbed or sloughs out, and the patient remains unimproved."—*Medical Record.*

HEMICRANIA.—To lessen the frequency of these headaches, the most efficacious means are, I think, abundant exercise in the open air, a nourishing diet, hot sponging in the morning followed by cold douches over the shoulders and spine, and a very sparing use of tea. Among drugs, the following:

R	Sodii arseniatis.....gr.	$\frac{1}{32}$
	Ext. cannabis indicæ.....gr.	$\frac{1}{2}$
	Ext. belladonnæ.....gr.	$\frac{1}{4}$
	Zinci valerianatis.....gr.	$\frac{1}{2}$

M. ft. pil. No. 1. S.—To be taken after breakfast and dinner.

To cut short the attacks, after more than two years' experience of its strikingly beneficial action, I feel justified in commending the salicylate of sodium. When the patient awakes with a feeling of headache, he is to take a scruple of the salicylate in a wineglassful of water, made effervescent by the addition of a dessertspoonful of the granular citrate of caffeine. The dose may be repeated in two and again in four hours, if necessary.—LITTLE, in *Dublin Journ. of Med. Science.*

METHYLENE.—Sir Spencer Wells, in *The British Medical Journal*, takes occasion to reiterate his expressions made ten years ago, to this effect:

"Given properly diluted with air, the vapor of chloromethyl has, in my experience of more than ten years, with more than 1000 operations of a nature unusually severe as tests of an anæsthetic, proved without a single exception applicable to every patient, perfectly certain to produce complete anæsthesia, relieving the surgeon from all alarm or even anxiety; and its use has never been followed by any dangerous symptom which could be fairly attributed to it."

He limits his recommendation to the methylene prepared in London; that made by Riegel in Berlin being objectionable on account of the inhaler becoming obstructed with frozen vapor. He uses Junker's inhaler.

ANTIPYRIN IN CEREBRO-SPINAL MENINGITIS.—From the ancient realm of Venus we have a new use of this remarkable drug.

Stephen, writing from Nicosia, Cyprus, to *The British Medical Journal*, says that antipyrin is of the greatest possible value in epidemic cerebro-spinal meningitis. This success depends less upon its antipyretic action than on its power of quelling those "nerve-storms," which are a principal cause of death.

He gives three doses of fifteen grains each, during the evening and night.

CARBOLIC ACID IN TYPHOID FEVER.—In the *Lancet*, Gramshaw reports a series of 116 cases of typhoid fever, treated with carbolic acid. The cases extended over a period of seven years.

The diet was restricted to new milk,

toast and water, barley water and calf's-foot jelly.

The following formula was employed :

R	Acidi carbolici (Calvert's extra pure)	℥ xij
	Tinct. iodi (B. P.)	℥ xvj
	Tinct. aurantii corticis.	f 3 iss
	Syrupi.	f 3 iij
	Aquæ.	q. s. ad f 3 viij

M. S.—f 3 j every four hours for the first two weeks; then thrice a day.

The good effects are shown almost immediately. In two days the pulse slows and gains in strength, the temperature falls, the tongue becomes moist, all diarrhoea ceases, and the general condition of the patient is so much improved that, as a rule, in a week all anxiety is at an end.

Sometimes the case is cut suddenly short; but more often it runs a course of thirty days, before all danger of relapse is past. The remedy is continued for four days after the temperature has become normal. If constipation ensue, enemata alone are to be employed. No deaths occurred in this series; one case dying, during late convalescence, from another cause.

CASCARA SAGRADA IN RHEUMATISM.

—H. T. Goodwin, M.D., assistant surgeon, United States Marine Hospital service, writes to the *N. Y. Medical Journal* as follows: The effect of cascara sagrada in rheumatism I discovered by accident. About three months ago I was attacked with severe rheumatic pains in my shoulder, the slightest motion causing intense pain. The third day of the attack I commenced taking as a laxative ten drops of the cascara, t. i. d. The first morning after taking it the pains were so much less severe that I could move my arm freely. The day following I was entirely free of all discomfort.

Although, as I have intimated, I had not taken the cascara with any idea of relieving the rheumatism, it occurred to me a few days later that possibly the sudden subsidence of pain might have been due to the drug. There being a few cases of rheumatism in the wards, I determined to try to verify my suspicions. Discontinuing the salicylates, iodides, etc., which these patients were taking, I substituted ext. cascarae sagradae fl., 1 c. c., t. i. d. The result as-

tonished me. Within twenty-four hours there was marked improvement in every case.

I have since used the cascara in thirty cases, ten of which were in out-patients, and, with the exception of three or four in which there was a syphilitic taint, I have obtained the most satisfactory results. I commenced with 1 c. c., t. i. d., and have so far never had to increase it beyond 1.5 c. c., and even to this extent in but two cases. I have seldom had to wait beyond twenty-four hours for beneficial effects. In two cases I had to stop it temporarily owing to its opening the bowels too freely. In such cases I would suggest that one of the preparations of iron be given (separately) at the same time. I usually combine it with syrup or glycerin in equal parts, and instruct the patient to take from thirty to forty drops in water. In one case in which neither it nor the salicylate of sodium appeared to give much benefit I combined the two with good effect. It is but seldom the bowels are opened too freely by it, the cases above referred to being the only ones I have so far observed.

DOMESTIC ANIMALS AND INFECTIOUS DISEASES.—That domestic pets are capable of taking and spreading infection has been amply demonstrated. That diphtheria is particularly liable to be so conveyed is shown by the experimental researches on diphtheria, made by Dr. Renshaw in 1884, who was successful in inoculating cats with diphtheria from the human subject (see *Journal* of January 3, 1885). Dr. Turner, it will be remembered, last year presented an interesting report on diphtheria in animals to the Local Government Board. A further illustration is afforded by the following example, the record of which is taken from the *Sanitary Record* for June: "In his report on the recent sustained prevalence of diphtheria in Enfield, Dr. Bruce Low, of the Medical Department of the Local Government Board, incidentally states that during the continuance of the epidemic cats were observed to suffer in considerable numbers from illness; and in December, 1887, and January, 1888, there was a large mortality among those animals,

so much so that the attention of the dust contractor was directed to it. He stated that never in his previous experience had he seen so many dead cats in the dust heaps. Some households, seeing their cats ill, destroyed them. Though there were no known cases of diphtheria occurring in the practice of the veterinary surgeons at Enfield, yet they saw many cases of 'influenza' at this time among animals. The following is an illustration of the possible connection between diphtheria in children and in cats. A little boy was taken ill with what turned out ultimately to be fatal diphtheria. On the first day of his illness he was sick, and the cat, which was in the room at the time, licked the vomit on the floor. In a few days (the child meanwhile having died) the animal was noticed to be ill, and her sufferings being so severe and so similar to those of the dead boy, the owner destroyed her. During the early part of its illness this cat had been let out at nights in the back yard as usual. A few days later the cat of a neighbor, who lived a few doors further off, was noticed to be ill. It had also been out in the back yards at night. This second animal, which, however, recovered, was the pet and playfellow of four little girls, who, grieved at the illness of their favorite, nursed it with great care. All four girls developed diphtheria, their mother being convinced that they got it from the cat; and, indeed, no other known source of contact with infection could be discovered. It is easy to imagine cats catching an infectious illness like diphtheria, when we remember how often milk and other unused food from the sick room is given to the cat, or by some people thrown out in the back yard for the benefit of the neighbors' cats, if they have none of their own. It is a frequent occurrence to see children carrying cats in their arms, and even kissing them. It is obvious that if the cats were ill with diphtheria the children, under such circumstances, would almost inevitably contract the disease.

—*British Med. Jour.*

WHAT CHILDREN SHOULD DRINK.—Duchesne states that a perfect drink for children must be innocent, cheap, slightly sweet and somewhat bitter, to

quench the thirst and prevent too free drinking. He recommends:

R	Licorice,	
	Sugar, each.....	16 grains.
	Bicarb. soda.....	12 "
	Crystallized quassine.....	$2\frac{1}{10}$ "
	Essence of aniseed.....	3 drops.
	Water.....	1 quart.
	<i>Med. Press and Circ.</i>	

LETTERS TO THE EDITOR.

OUR HOSPITALS FOR THE TREATMENT OF THE INSANE POOR.

Editor *MEDICAL TIMES*:

In the issue of the *MEDICAL TIMES* of July 16th, you have referred, with rather unusual spirit, to the resolution offered by me to the Medical Society of Pennsylvania, in which I asked for a committee to memorialize the Legislature for a change in the laws governing the hospitals at Harrisburg, Danville and Warren, that would give to the Trustees of those hospitals the absolute power to manage the affairs of their institutions, and would relieve the Superintendents of all duties save the medical. You say that, "to one unfamiliar with the practical workings of an insane asylum there may be an apparent plausibility about such a proposition," which means that, to a person of common sense, it seems reasonable that the Trustees of an institution, who are held liable for its being properly conducted, should have the control of it. The Trustees of that grand old Pennsylvania Hospital in Philadelphia have operated it most successfully for more than a century, and its physicians and surgeons have had no cause to complain of neglect to provide everything needed for the well-being of the patients and the comfort and convenience of themselves. Had they a want, it was only necessary to notify the Trustees and it was supplied.

We have heard for several years the clap-trap objection to "two heads" to an institution, and it seems to have influenced you; for you ask, "Is it at this late day necessary to say that for the proper management of an institution there must be one responsible head?" It is surprising that any man who has had business experience should deem it

necessary to load a physician, who is to treat several hundred insane people, with the extra and perplexing labor incident to conducting a large farm and to procuring all the daily supplies for the vast household of insane people. The Superintendent believes there should be only one head to a hospital, and that should be his. The Trustees are regarded by him as men who are ignorant of what is needed for the comfort and use of the physician and the patients, and, worse than that, that they would, if they had power, obstruct the physician in the performance of his duties.

He seems to regard the Trustees as men who are seeking opportunities to embarrass him and to thwart his efforts to promote the welfare of the insane under his care.

There is a grand example of the importance of having the absolute power located in a Board of Trustees—"one responsible head"—in the Eastern Hospital at Norristown. These thirteen Trustees, eminent men, anxious for the welfare of the patients and the honor of the State in the care of her unfortunate people, have the entire charge of everything, from the appointing of the physicians to the minutest details of management of every employé. That they have shown great wisdom in their selection of Dr. Alice Bennett, as chief physician of the female department, is acknowledged by you, when you say: "The success which has been obtained is due to the remarkable ability of Dr. Bennett, and not to the management of the Trustees." The work of Dr. Bennett and her success have indeed been remarkable, but not a whit more or greater than that of Dr. Robert E. Chase in the male department; and their success is greatly due to the fact that the Trustees—like the managers of the Pennsylvania Hospital—have furnished to the physicians everything which the latter needed for the welfare of their patients.

These two physicians, thus supplied, and having their whole time to give to the care of the insane—now 1666 in number—have a record of success not known in any one of our other State hospitals for the insane poor.

Highly as I prize the labors performed,

and the improvements in management, suggested and carried into effect by the physicians, I feel that the Trustees deserve great praise. How does it happen that in no other State hospital for the insane poor, these reforms, found at Norristown (where they are attracting the attention of philanthropists and Trustees of hospitals from other States), are to be found? Is it not because the physician is burthened with too much business foreign to the medical care of the insane? And that the Trustees are powerless, rendered so by the law, to effect any change? If you will allow me the use of your columns, I shall be glad to give to your readers some thoughts and facts which will, probably, convince you that the Superintendents, in their violent denunciation of the author of the resolution offered to the State Society, were looking to self-interest more than to the welfare of the insane. Having seen some of the workings of the Harrisburg Hospital during my seven years of trusteeship there, I can speak of it knowingly.

HIRAM CORSON.

[The columns of the TIMES are alike open to Dr. Corson and to those who take issue with him, for the discussion of any matter of interest to the profession.]

PENNSYLVANIA HEALTH RESORTS.

CAMBRIA COUNTY.

(Continued from last number.)

Wildwood Springs is located on the Cresson, Clearfield Co. & New York Short Route Railroad, which connects with the main line of the Pennsylvania Railroad at Cresson, Pa. The country is primitive, and vast forests extend on all sides.

Wildwood Hotel was built especially for accommodating summer guests. The bath-rooms are supplied with hot and cold water. The hotel, with the cottages, will accommodate about one hundred guests.

An abundance of excellent water is supplied to the house from Wildwood Spring.

A lake, covering about twelve acres, is in view from the hotel piazza—this affords a splendid place for boating.

Two artesian sulphur wells are about ten minutes' walk from the house. These wells are constantly flowing.

Early cases of hay fever have been cured; others have been comfortable, and worse cases modified.

Phthisis cases usually do well and many are much benefited.

Change of climate and rarer atmosphere usually improve scrofula.

Convalescents from any low form of disease, especially typhoid in character, show almost from the beginning an improvement, when weeks and months at home failed to show any marked change.

The water is mostly very pure.

Hotel accommodations are good—capacity ranges from a few to 1100—first in private house, the other at hotel at Cresson.

A good livery will be kept on the place; those wishing to bring their own teams will be provided with good stabling and careful attendance.

Rates: \$2.50 a day. Ten dollars to fifteen dollars a week.

Wildwood Springs is four miles north of Cresson and is the first stopping place after leaving the Pennsylvania Railroad.

There are chalybeate and magnesia mineral springs and others not analyzed. The waters are much used here, and are shipped to different places.

There are a number of places near or surrounded by forest—pines and other wood groves. At South Fork or Cone-naugh Lake, 15 miles west of Cresson is a lake covering four hundred acres, with sail and steamboats.

Average temperature at Cresson for the three summer months for several seasons has been 60°.

The scenery is delightful and varied; roads mostly good for driving; and there is fishing for trout, bass and eels.

Children weak and enfeebled, owing to mal-nutrition, and during dentition, thrive above all others here, owing to the entire absence of choleraic troubles during the hot months; convalescents from any form of long-continued disease, except those in the last stages of phthisis, are advised to come.

ROBT. DEVEREAUX, M.D.

CRAWFORD COUNTY.

Meadville.—We have three excellent

mineral springs in Crawford County. Probably the best one is the Eureka Spring at Sægertown, six miles from here. This is becoming quite a noted health resort. The constituents are largely iron, with traces of sulphur. The most benefit derived from the use of this water is by those suffering from scrofula, rheumatism and heart disease. In connection with this spring is a large and commodious hotel. There is another spring two miles from here known as the Ponce de Leon. This water is slightly alkaline, with traces of lithia; useful mostly in rheumatism and bladder troubles. Conneaut Lake is situated eight miles from here and has also a mineral spring with constituents similar to those in the Eureka Spring at Sægertown; and the water is used for about the same conditions. This lake is a most beautiful sheet of water. It has several steamers on its waters, and affords superior advantages for boating and fishing.

The surrounding country is unsurpassed for fine drives. The expenses are moderate. The hotel advantages good. The air is bracing, and the surroundings most cheerful.

CHARLES P. WOODRING, M.D.

Penn Line.—The temperature averages in summer about 85° F.; Winter, perhaps, 26° F.

CUMBERLAND COUNTY.

Carlisle.—The only health resorts open in Cumberland County are the Doubling Gap Springs and the Mount Holly Inn, six miles from Carlisle, on the railroad to Gettysburg. For a quiet resort I can commend the former. We have delightful mountain scenery, pure air, summer temperature about 70°, pure mountain water, as well as two kinds of mineral water. I have no doubt that for all diseases, except for consumption in the last stages, the surroundings would be the best. Those who go there for rest, especially over-worked people of every kind, are always benefited. The fact that it is in the mountains, with every kind of mountain diversion, walks and drives, gives to the place its real value for all persons mentally broken down with worry of business or cares. It is a place, *par excellence*, for all persons

suffering from a malarial atmosphere, indigestion, dyspepsia and biliousness. It can accommodate one hundred persons. Table good; charges eight to ten dollars a week.

Of the Mount Holly Inn I can say that there are good accommodations there for one hundred persons, at same price. The town is a very cool place; not so good for invalids, or rest or quietness, but is convenient by railroad. Pure mountain water; no mineral water. The place is not good for consumptives, on account of a cold draft in the mountain gorge.

R. L. SIBBET, M.D.

A most intelligent letter from Dr. Betz, of Oakville, Pa., with regard to the Doubling Gap Springs, tells us that the White Sulphur spring contains, besides sulph. hydrogen, both the carbonates and sulphates of sodium and of magnesia. A few rods distant from the sulphur spring is the chalybeate spring. The Mount Holly Springs, he says, is an attractive place of some note, of which more can be learned by addressing the proprietors, Messrs. Mullins.

FAYETTE COUNTY.

Fayette Springs.—In the U. S. Dispensatory, edition of 1883, on page 1826, there is an analysis of the water of Fayette Springs. The water is slightly chalybeate and agreeable to the taste. Springs of cool mountain water impregnated with lime and magnesia are also numerous in the vicinity. Fayette Springs are located on Chestnut Ridge, in the Allegheny Mountains, at an elevation of about 2000 feet. Persons suffering from malarial diseases are particularly benefited by residence here. Hay fever patients often experience relief, and the mountains round about are deemed "a very healthy location." There is a small hotel at the springs, and board is readily obtained in private families in the mountains near by at from six to ten dollars per week. The scenery is romantic and rugged, and the mountains are covered with pine and oak forests. There are a number of good hotels in Uniontown, which is patronized to some extent by Pittsburghers and others as a summer

boarding place. Rheumatics should not come here—some mornings foggy.

W. S. DUNCAN, M.D.

FOREST COUNTY.

Tionesta.—There is a spring convenient to this place, but it has not been developed. It is supposed by many to contain iron largely. There are a great many pine and other forests in this county, which would make pleasant and healthful resorts during the summer. The summer is usually pleasant in the forests. Most sections of this county are healthy. I think the most prevalent diseases we have are hay fever and bronchitis. We have no malaria. Pneumonia is rather common in the early months of spring. Forest county is well watered. The hotel accommodations are generally good. They have been able to accommodate all that stop with them. They set a good table, and charges are moderate.

In this place and in the county generally one can have boating, fishing, shooting and driving at moderate cost. The roads are good, but often hilly.

Dyspeptics, and those needing rest, would be benefited here; but I would not advise asthmatics and those affected with catarrhal diseases of the chest to come.

J. W. MORROW, M. D.

GREENE COUNTY.

New Freeport.—There are no mineral springs in this county, but there are many delightful forests. The temperature varies greatly both in winter and summer. Could hardly say that the climate is favorable for any of the diseases mentioned, except malaria. Our water is what we term hard water, and contains a great deal of lime.

Hotel accommodations are good: \$2½ to \$4.00 per week. Diversions: Shooting, driving, scenery. I would advise almost any to come except those who are suffering from bronchial or pulmonary trouble. It is especially favorable for patients suffering with malaria.

J. H. RINEHART, M. D.

HUNTINGDON COUNTY.

Three Springs.—Saltillo has considerable merit on account of its healthful situation and the medicinal properties of its mineral springs. Our town, Three Springs, is two miles south, with

the same geographical formation, with similar water, and, in addition, we have a sulphur water that has never been analyzed.

J. C. STEVY, M. D.

LUZERNE COUNTY.

Jeanesville.—As regards the effect of this climate on diseases mentioned, I would say that, so far as my experience of a few years goes, hay fever is not benefited; bronchitis, tonsillitis and rheumatic affections are very common; phthisis also is by no means rare, and I have only seen a very few cases benefited by a prolonged stay here. Scrofula and heart disease occur quite frequently, especially the latter, and some cases are aggravated by a stay here. The elevation is 1750 feet above sea-level. Malaria is, indeed, almost unknown. The summer here is usually cool; at least the nights are cool, even in the warmest weather. Scenery is mountainous and very pleasant. Riding can be had at reasonable rates; roads good. No hotel accommodations for invalids.

E. R. DOOLITTLE, M. D.

Upper Lehigh.—In reply I enclose a circular of the hotel here, which is quite truthful as far as it goes. The weather is cool here, the thermometer seldom rising above 80° F. There are no mineral springs in this region that I know of. The water, however, is very pure and good. I find that all patients suffering with pulmonary diseases do very well; also patients with malaria and its sequelæ are very much benefited. Some of the most obstinate cases of insomnia have been relieved by a few weeks' sojourn.

H. M. NEALE, M. D.

Upper Lehigh Hotel.—The circular says that this hotel is situated on the Lehigh and Susquehanna Division of the Central R. R. of N. J., ten miles from White Haven and 1900 feet above tide-water, entirely free from hay fever, malaria, etc. Good trout fishing, beautiful walks and scenery, pleasant drives, good roads and first-class livery at moderate rates. Doctor, church, railroad and telegraph station, all within two minutes' walk of the hotel.

MIFFLIN COUNTY.

Dr. A. S. Harshberger, of Lewistown, writes that there are sulphur springs

in that county, but nothing attractive in the way of health resorts, forests, lakes, etc. The temperature ranges from 6° to 8° below zero in winter; to 99° above, in summer. He considers the county not inviting for those suffering from any of the diseases mentioned in the circulars; but malaria flourishes only along the Juniata. The water is limestone. There are good hotels, accommodating from 50 to 100, with rates of from 8 to 10 dollars per week.

MONROE COUNTY.

Stroudsburg.—There are no mineral springs in this county.

Three lakes in the county. Pine forests in what is popularly known as the "beech" elevation of this region which is 1800 feet above tide.

The mean temperature is 75° Fahr.

The mortality from lung and heart disease, with importations, is below average; no malaria.

The drinking water is pure, except in Delaware Valley, where it is slightly hard; all spring water.

Hotel and summer boarding-houses will accommodate at least 10,000. Table generally good; price from \$5.00 to \$25.00 per week.

At lakes and along Delaware River there is good boating and plenty of fishing; brook trout and bass in season. Game is plentiful: Grouse, quail, snipe, deer, black bear for him who dares. Unsurpassed mountain scenery; excellent driving. Boats cost from \$1.00 per hour to \$7.00 per day, depending on locality. Fishing and hunting cost nothing if you do it yourself, paraphernalia, ammunition and physical wear and tear excepted. Teams cost from \$4.00 to \$6.00 per day, including driver; single team, no driver, from \$2.00 per day to \$4.00.

In the forest district the mosquito presents his bill with frequency.

There are numerous streams in the county of the purest water, all inhabited by speckled trout. J. H. SHRILL, M. D.

Delaware Water Gap—Water Gap House.—The following information in relation to the Delaware Water Gap is furnished by J. B. Shaw, M. D., resident physician.

The hotels are situated on a spur of the Blue Ridge at the passage of the

Delaware River, about 90 miles north of Philadelphia. The climate is much of the mountain type. The air is dry throughout the year; by its rarity it is tonic and stimulating. The temperature is variable—the nights some 15 or 20 degrees cooler than the day. The air is rarified and is free from moisture. In diseases of the respiratory organs, the Water Gap is especially beneficial. There is excellent drainage, and the place is perfectly free from malaria and zymotic diseases.

Pocono Mountain House, Mt. Pocono, P. O.—Its circular says that this house has accommodations for 300 guests. It occupies the finest position in the Pocono Mountains, commanding an entire view of the valley to and below the Delaware Water Gap. It is surrounded by a beautiful grove, and there are numerous springs of pure cold water. It is the center of the finest trout fishing, hunting, etc. A good livery in connection with the house. Carriages will meet all trains.

PERRY COUNTY.

Ickesburg.—Mineral springs exist in Perry county, iron and sulphur being the principal constituents. The water is well-adapted to those suffering from indigestion and general debility. Pine forests and ridge and mountain elevations are numerous; and well-watered, fertile valleys are also among the attractive features of our county. The temperature in summer seldom goes above 85°, and in the winter only a few degrees below zero during the coldest days. The effect of the climate upon hay fever is favorable, and cases of acute and chronic bronchitis and phthisis seem to be much benefited in our county. Those suffering from heart disease of a functional character seem to recover rapidly, and any who may come here with organic heart disease are not found to be growing worse as they prolong their stay. Scrofulous persons have sojourned in this county, and all have expressed themselves highly pleased with the hygienic surroundings.

Along the Juniata River, in the fall of the year, cases of malaria occur; but yield readily to blue mass and quinine. Other diseases, such as scarlet fever,

measles and typhoid fever, occur, but are not severer in type than in other regions.

The drinking water of Perry county is limestone in some sections; mountain, or soft water, in others; while in many parts of the county it is from springs coming from flint-gravel soil. The hotel accommodations in some of our towns are quite good; in others very ordinary; all, however, give very good boarding, and at prices ranging from \$4 to \$6 per week, including room furnished sufficient for comfort of invalids. The diversions consist in boating, fishing, hunting, driving and enjoying the finest scenery in the State at very moderate cost.

There is no class of invalids who would not be benefited by a sojourn here; but would especially advise all those who are suffering from bronchitis, phthisis, heart disease, or dyspepsia to come and partake of our pure mountain air and good water, and the well prepared diet kindly served by our people.

W. R. CISNA, M.D.

PIKE COUNTY.

Dingman's Ferry.—Along with a courteous letter, Dr. P. F. Fulmer, the proprietor, sent an announcement of the *High Falls Hotel*. We give a few extracts below. The hotel remains open till December for the accommodation of hay fever sufferers. Dingman's Ferry is located on a mountain range in the valley of the Delaware, 1200 feet above sea-level. Forests, brooks, and the Delaware river influence the temperature, but no marsh-lands foster malaria. The drainage is natural and unsurpassed. Port Jervis (on the Erie Railway) is fifteen miles above. The hotel itself is eligibly situated. Its dormitories are spacious and airy. Spring water of rare purity is exclusively used. The proprietor is a physician in regular practice. Terms: \$2.50 per day, or \$10.00 per week.

SCHUYLKILL COUNTY.

Shenandoah.—I do not deem this place as in any way fit for a health resort. It is a large mining town, poorly located, no sewerage, and people crowded in tenements such as you find in your cities. There are a very large

number of Poles, Hungarians and Italians among the inhabitants.

D. J. LANGTON, M. D.

SUSQUEHANNA COUNTY.

Thompson.—For nervous invalids and those whose health has been broken down by constant application to business it would be a first-class resort; climate is good, air pure and bracing. Elevation 1300 feet above sea level. Good fishing (black bass and pickerel) within two and a half miles. Plenty of pure milk, vegetables and butter to be had at all times. Scientific medical treatment when required. Good boarding places can be procured for fifteen or twenty persons at from three and a half to five dollars per week at hotel or boarding-houses.

The climate for hay fever is too rarified; bronchitis, good; phthisis, good; heart diseases, moderately good; scrofula, good; malaria, not very good; other diseases, generally good. Drinking water perfectly pure. Hotel accommodations, ordinary. Diversions, good driving (nothing else). Invalids especially advised to come, pulmonary invalids and rheumatics.

A. O. STIMPSON, M.D., C.M.

SULLIVAN COUNTY.

Eagle's Mere.—The experience of eight years in the treatment of patients at Eagle's Mere has led me to consider it a place adapted for all classes of chronic affections, and more especially lung and bronchial affections, malaria and all of its allied diseases. It is situated some 2200 feet above sea-level, affording in the summer a temperature of from sixty-five to eighty-five degrees; while, at the same time, there is always a gentle breeze, free from dampness.

Persons suffering from bronchial affections find relief. The hotels are well built, having all the modern conveniences. The rooms at Hotel Eagle's Mere are large and airy. Those suffering from general prostration find that the pure air and cool evenings give them a night of perfect rest. The system of sewerage is complete, so that every property owner can connect with main sewer, which empties three-fourths of a mile from any building into a mountain stream.

W. B. HILL, M.D.

THE VALUE OF PEPTONES IN DISEASE.

Up to within a few years ago the physician was almost powerless to nourish his patient during those periods when the stomach, weakened from fever and suffering, rebelled against its work. Indeed, it is pitiable to think how many lives have been lost from sheer lack of some food which the enfeebled digestive apparatus could prepare for assimilation, so as to tide over the dark hours of the struggle and put the exhausted organism once more on the road to health—to a gradual and complete self-disinfection. But of late years a most important weapon in defense of human life has been placed in our hands with the invention of peptonized foods, particularly that class of preparations known as "beef peptones." Unlike the ordinary meat extracts, they contain not only the stimulating portions, but also the nourishing, life-sustaining albuminoids of the beef in the predigested form known as "peptones," in which they are nearly ready for immediate absorption and assimilation. Thus they combine the two cardinal requisites for reconstruction of tissue: highest nutritive value and greatest digestibility.

Unfortunately, the great body of the profession fail to recognize the importance of peptones for the prevention of the marked loss of tissue in prolonged febrile movements and in other conditions in which digestion is impaired. Having used beef peptones (generally Rudisch's "sarco-peptones") in a great number of cases during the last four years, particularly in typhoid fever, dysentery, cancer of the stomach and rectum, phthisis, scarlet fever, diphtheria, anæmia, vomiting of pregnancy, gastric troubles of all kinds, nervous dyspepsia, Bright's disease, ulcers of the stomach, peritonitis, and cholera infantum, I have come to the conclusion that beef peptones are more nutritive than milk, that the stomach retains them when it tolerates no other food, that infants and aged people can be nourished by them when milk is rejected, and that there is no therapeutic or dietetic agent which in disease will repair bodily waste as quickly, as effectually, and with as little assistance by

the digestive organs as beef peptones. I am confident that in many of my own cases, both of children and of adults, a fatal termination has been averted by the timely use of beef peptones.

Appreciating the fact that good air and good nourishment must be chiefly depended upon to check the destructive work of bacilli in the living organism, and possessing in beef peptones a valuable agent to support vitality in the decisive hours of this mighty contest, I now assume charge of the most serious cases with a feeling of greater power and usefulness than heretofore. The records of my case-book will bear out my belief that by a more general adoption of these views and of the dietetic agent mentioned, many valuable lives could be saved or prolonged.—
BARKAN, in *N. Y. Medical Journal*.

PRELIMINARY ANNOUNCEMENT of the Annual Meeting of the American Association of Obstetricians and Gynecologists, to be held in Washington, D. C., September 18, 19, and 20, 1888. Subjects: The President's Annual Address, William H. Taylor, Cincinnati. Discussion, Extrauterine Pregnancy: 1. Pathology; 2. Diagnosis; 3. Treatment; (a) Medical; (b) Electrolytic; (c) Surgical. The Relations of the Abdominal Surgeon to the Obstetrician and Gynecologist, Albert Van der Veer, Albany; Operation for an Unusual Case of Subserous Uterine Fibroid, Hampton Eugene Hill, Saco, Me.; Drainage in Abdominal and Pelvic Surgery, Joseph Price, Philadelphia; Double Ovariectomy during Pregnancy; a Successful Case Going on to Full Term, William Warren Potter, Buffalo; The Indications for Artificial Aid in Labor, Thomas Opie, Baltimore; The Technique of Vaginal Hysterectomy, James H. Etheridge, Chicago; The Surgical Treatment of the Perineum, William H. Wathen, Louisville; Laparotomy in Peritonitis, E. E. Montgomery, Philadelphia; Tumors of the Abdominal Wall, Charles A. L. Reed, Cincinnati; Uterine Fibroids, their Diagnosis and Treatment, Thomas J. Maxwell, Keokuk; Desmoid (Fibroid) Tumors of the Abdominal Walls, Edward J. Ill, Newark; Ruptured Perineum, J. Henry Carstens, Detroit; A Contribution to

the Study of Pelvic Abscess, Clinton Cushing, San Francisco; The Female Perineum, its Anatomy, Physiological Function, and Methods of Restoration after Injury, (this paper will be illustrated with lime-light and screen), Henry O. Marcy, Boston; Heart Failure in the Puerperium, Thomas Lothrop, Buffalo; Treatment of Suppurative Peritonitis, William H. Myers, Fort Wayne; Operative Treatment in Uterine Carcinoma, George R. Shepard, Hartford; The Reflexes Reflected, or Some Things that Retard Progress in Gynecic Surgery, Joseph Eastman, Indianapolis; Some Points in Relation to the Diagnosis of Pregnancy in the Early Months, James P. Boyd, Albany; Vaginal Tamponnement in the Treatment of Prolapsed Ovaries, W. P. Manton, Detroit.

Mr. Lawson Tait, F. R. C. S. E., Birmingham, England, will also present a paper on "The Methods of Success in Abdominal Surgery."

NOTE.—Mr. Lawson Tait, Dr. Franklin Townsend, Dr. E. E. Montgomery, Dr. Charles A. L. Reed, D. A. Van der Veer, and others will participate in the discussion on Extrauterine Pregnancy. The full announcement of the topics that each referee will speak on will be made in the final programme to be issued in August.

WILLIAM W. POTTER, M.D., *Sec'y*.
WILLIAM H. TAYLOR, M.D., *Pres*.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 15, 1888, TO JULY 28, 1888.

BAXTER, J. H., COLONEL AND CHIEF MED. PURVEYOR.—Will proceed to New York City on public business connected with the Medical Department, and on completion thereof will return to his station in Washington City. S. O., 150, A. G. O., June 29, 1888.
CROSBY, WM. D., 1ST LIEUT. AND ASST. SURGEON.—Leave of absence extended one month. Par. 8, S. O., 151, A. G. O., June 30, 1888.
MAJOR, CALVIN DE WITT, SURGEON.—Leave of absence extended one month. S. O., 159, A. G. O., July 11, 1888.
JOHNSON, RICHARD W., CAPT. AND ASST. SURGEON.—Designated as medical officer for a camp of instruction in rifle practice to be established at Fisher's Island, N. Y. (near New London, Conn.), on the 2d of July, 1888, and to continue during the months of July, August and September; and ordered to proceed to Fisher's Island in proper season and report to the commanding officer for duty. S. O., 131, Div. Atlantic, June 28, 1888.

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No. 539. AUGUST 15, 1888. VOL. XVIII

CLINICAL LECTURE.

BY JAMES E. GARRETSON, A. M., M. D.,
Professor of Oral and of Clinical Surgery in the
Medico-Chirurgical College.
Reported by ERNEST B. SANGREE, A. M.
TUMOR IN PAROTID REGION.

GENTLEMEN: The first case I bring before you is a young woman who has a tumor in the parotid region. Now what are we to do first? Make a diagnosis. Here, then, is our diagnosis or attempt at a diagnosis. Let us begin with the premise that we have a tumor in a certain anatomical region. We know that there are certain regions of the body, such as the back, the arms, or the buttocks, in which if there be a tumor, we have but little concern about its removal; for we know that there is no danger of wounding any of the vital structures; in fact, a mere tyro could perform the operation. But there are other regions again, such as the groin, the abdomen, or the neck, on which, when we operate, we have the greatest possible concern. Here the exactest anatomical knowledge and the highest excellence of the surgeon's skill are required, for we tread on the confines of death.

So far as we are concerned at present, however, there is no other part of the body than the neck, and let us now

consider this region more particularly. How can we arrive at a positive diagnosis in any case? Only by exclusion, *i. e.*, knowing what a thing is by knowing what it is not.

In considering a given region with respect to a tumor, we first call to mind the tumor that is most common in that region. For instance, in the groin, we at once think of hernia, and next of an enlarged lymphatic gland; in the back, lipomata or fatty tumors are most common; in the scalp, we ask ourselves, is it a sebaceous cyst?

Of course this does not imply that we have to deal with the tumor most common to that region, but we naturally begin with that which is most familiar and plain, and thence go to that which is more obscure and recondite.

Should the characteristics of the tumor in question not be those of the most common, then we go around the circle of possible tumors till we find one with which the phenomena do accord.

Reasoning in this way, let us ask ourselves "what may this tumor in the parotid region be?" It may be an enlarged lymphatic gland, a lipoma, sarcoma, fibroma, a sebaceous cyst, carcinoma, angioma, or an enlargement of the parotid gland. We have not exhausted the possibilities, but this will do for our purpose.

Putting my hand on the tumor, I can make out no pulsation; therefore it is not an aneurism. It has not the elastic feel of a sebaceous cyst, nor can I almost close my fingers around it as we can generally do with those tumors. Instead of that it has a fixed base and a feeling of resistance like that of a fibroma.

Sometimes it happens that a lymphatic gland connected with the parotid will enlarge so much that the constant pressure will cause the absorption of the parotid gland, the lymphatic taking its place. Perhaps, as I said, it may be the parotid itself. Well, we must be prepared for any emergency. If this be the parotid gland, it shall come out. Some say that this gland cannot be removed without causing the patient's death. In reply to this belief, I have only to say that the parotid has several times been removed by me, and the patients are still living.

But with regard to this tumor: am I able to differentiate it before the knife has been applied? I am free to admit that I cannot say positively what it is; but there is one important point with relation to it about which I am absolutely certain, and that is this: whatever the growth is, remove it. If the tumor be not taken out, we should probably find it enlarging and enlarging till it would interfere with some of the vital structures in the cervical region, and thus finally put an end to the girl's life. So then, although we are in doubt as to the histology of the tumor and the name that belongs to it, we are in no doubt as to the proper course to pursue.

My classification of tumors I consider exceedingly simple and yet perfectly satisfactory for all surgical purposes. I divide them into two great classes: the Explainable and the Non-explainable; that is, the first—generally known as benignant—carry with them their own explanation; and the second—malignant—are as yet without explanation. The indications in a tumor of the first class are to treat it *secundam artem*; in the second, to remove it or to let it be, doing either of these according as the tumor is large or small, circumscribed or disseminated through much of the surrounding tissues.

Before cutting down on the tumor, I rapidly revolve in my mind the important structures in this region—structures that I must avoid: for instance, the external jugular vein and the veins that give rise to it, the external carotid artery, the pneumogastric nerve.

The patient is now etherized, and I take the first step in the operation: uncover the tumor. My assistant now holds the growth well up with a pair of volsella forceps, so that I can slip my knife around the tumor as close as possible to its surface, in order to avoid wounding any large vessels. In spite of this care, the blood spurts forth in such a manner as to show that we have cut a vessel or two of some size. Here is one of the many situations in which it is so important that a surgeon keeps his presence of mind. My assistant simply presses his finger down into the cavity from which the blood wells, till I have entirely removed the tumor; and now we have both time and opportunity to grasp with the hæmostatic forceps these several bleeding points, preparatory to applying ligatures.

The object of this operation is now removed and in my hand; but I am not even yet determined as to its character, though it looks much like a malignant growth, a scirrhus. It will be given to the histologist for microscopical investigation.

CARCINOMA OF THE BREAST.

The next case is that of a woman of 47, afflicted with fungus hæmatodes. But what is the growth? "It is a cancer," answers one. No; I should rather call it simply a phenomenal expression of cancer.

Let us speak philosophically. Carcinoma is a certain something, an entity, which the senses cannot grasp; just as man is an entity which no one ever saw, but of which all men are expressions. So in carcinoma; all so-called cancers are merely phenomenal expressions of an ideal growth; and fungus hæmatodes, then, is one expression of an ideal vice.

The case is most pitiable. On her breast you see a large cauliflower-like growth as large as two good-sized fists. From this repulsive-looking object comes an odor of an indescribably nauseating sort, so that it actually saps

the vitality of all who smell it, both patient and friends. Characteristics of this kind must make the woman's life a burden not only to herself, but to her friends also, in spite of their earnest protestations to the contrary.

A case like this strongly reminds me of the story of Sindbad the Sailor's experience with the Old Man of the Sea, in the Arabian Nights. You remember that he fastened himself on Sindbad's shoulders, and made the poor castaway carry him about for days, till finally the adventurous sailor, by a clever trick, managed to shake off the unwelcome burden. We are now about to shake off this "old man of the sea," a far worse one than Sindbad had; but will he manage to regain his seat? You who have seen such instances as these know the probability.

Ordinarily, the best incision in a case where the chain of glands running to the axilla is involved, is in the line of that chain; but here, on account of the irregular character of the growth, we cannot choose our line, but shall simply have to do the best we can.

When the vitality is so low as that of this woman, it is desirable that not a drop of blood be lost. We shall approach this desideratum as near as possible by applying the hæmostatic forceps as soon as a bleeding point appears.

The patient is now fully under the ether; so we begin. I carry my incision around the growth, dissect back skin and fascia, and remove everything down to the sheaths of the muscles. But, as I said, some of the chain of glands running to the axilla are affected. These must also be removed, or the operation would be of little value; so I enlarge the wound and remove all that are involved. We will now remove the hæmostatic forceps, one by one, and those vessels that continue to bleed will be tied.

The surface of the wound is now carefully washed with the antiseptic solution which we have successfully used of late: the silico-fluoride of sodium, gr. $\frac{1}{2}$ to the \mathfrak{z} , and the edges of the wound are brought together with catgut sutures. Fortunately, on account of the flaccid condition of the skin, we have enough flap for our purpose, al-

though I had expected that part of the wound could not be covered, and would have to be left to heal by granulation. In the most dependent parts of the incision we have put small drainage-tubes; the whole is covered with gauze saturated with the antiseptic solution; the arms are bandaged so that no tension will be allowed on the stitches; the woman will be sent to the wards, and the rest must be trusted to the healing hand of nature.

THE USE OF ELECTRICITY IN THE DISEASES OF WOMEN, INCLUDING THE PRACTICE OF ELECTROLYSIS.

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THIRD PAPER.

THE FARADIC CURRENT IN GYNÆCOLOGY.

THIS easily produced current has been quite extensively used in direct pelvic applications, especially during the embryonic period of electro-therapeutic work, when the average operator considered one form of electricity about as good as another. Of late its employment has been much circumscribed as compared with the galvanic, based on a more general recognition of its limited physical capabilities; but the same scientific considerations have also indicated certain conditions in which it is pre-eminently useful. These physical qualities and peculiarities are best studied in much the same way as advised for galvanic currents, occasion being taken for a comparison of the two at the same time.

Faradic Apparatus.—The choice of a Faradic apparatus for gynæcological use is by no means so important as that of a galvanic apparatus, and it is somewhat unfortunate that a number of writers and manufacturers have been led to perplex the minds of average readers with speculative differences in the currents produced by different coils. In view of the vast divergence between galvanic and Faradic currents, these mystical peculiarities sink into utter insignificance, and their recognition only serves to obscure facts

of real importance. As the result of a long personal study of the subject, it is my deliberate conviction that all usable strengths and qualities of a Faradic current are obtainable from a single secondary coil of sufficient power by using the ordinary means of graduation forming a part of the battery. There is even, in my opinion, no therapeutic difference between the primary and secondary currents of Faradic coils beyond the fact that the latter gives a far higher range of current strengths.

In the selection of a Faradic apparatus, therefore, such questions may be safely left to the judgment of the manufacturer. Of the more mechanical parts, certain features require to be looked into, and this is especially true of the spring interrupter. A clear note from the apparatus is important in gynecological applications, as this indicates a regular succession of currents of even strength and duration. An irregular, jarring, discordant note emitted by a spring shows an unfitness for therapeutic work, as the irregular currents produced give unnecessary pain and fail to excite the tonic muscular action aimed at. The Du Bois Reymond method of graduating the strength of the current, by sliding the secondary coil over the primary, is especially well adapted to gynecological applications when Flemming's excellent cog-wheel mechanism for moving the outer coil is added. This apparatus, shown in the cut of cabinet battery in a previous paper,¹ is too bulky for portable batteries, but furnishes the most even method of gradually increasing and decreasing the current without shock—a desideratum in pelvic applications.

Principles Involved in the Production of Faradic Currents.—As a help to understanding the peculiarities of this current, a brief statement may be given of its mode of production.

If a Faradic battery, as received from the manufacturer, be critically examined it will be seen to consist of three parts: A cell; an arrangement of two coils, one placed over the other, with

an iron core in the center; and one or more devices for automatic current interruption. The cell in the portable battery is usually of the Grenét pattern with a removable zinc, and electro-poison fluid as the exciting liquid, but in stationary batteries two Law or Leclanché cells give much greater satisfaction, and save the watching and renewals demanded by the acid cell. The current from the cell does not reach the patient in any way, but is merely used to animate the coil in the following manner: From the cell it circulates through the inner coil of coarse wire, passing thence to the interrupter and back to the cell. During its passage through the coil the current makes the iron core magnetic, and thus attracts the bit of iron on the spring, drawing it towards itself and breaking the circuit. The circuit of the cell current being now broken, all magnetism in the iron core ceases and the spring returns by its elasticity to its platinum contact, restoring the cell current and causing the same series of phenomena to be repeated. It is evident that the rapidity of this make and break of the cell current by the vibrating spring depends mainly on the distance traversed by the spring at each vibration; hence, the platinum point, which does the double duty of controlling the spring and conducting the cell current, is attached to a screw, by which this distance may be regulated with great nicety.

About the electro-magnet, formed by the iron core and the inner coil, the long fine wire of the secondary coil is wound. It is not connected in any way with the circuit carrying the cell current, but is merely close to it. In it the currents conveyed to the patients arise by induction at the moments when the cell current is broken by the interrupter. Each current thus produced in the secondary coil is of almost infinitesimal duration (four one-thousandths of a second, according to Blaserna). What is called the Faradic current is consequently a series of remarkably short current productions, following each other rapidly or slowly as a fine spring, a coarse spring, or a pendulum is used to interrupt the cell current. The Faradic current is there-

¹Phila. MEDICAL TIMES, April 2d, 1888, page 392.

fore essentially a broken current and is never continuous.²

Management of the Apparatus and Method of Controlling the Strength of Faradic Currents.—To put the battery in action, insert the zinc, and make the proper connection tight if an acid cell is used; if a Law or Leclanché cell, close the cell circuit by a switch. If the interrupter does not begin action immediately, tap the screw-head over the platinum point lightly. Adjust the screw to as clear a note as possible, if it is not already adjusted. If an experiment or application be contemplated the battery should now be set for its weakest current, and the secondary circuit left open somewhere—a precaution against unwittingly shocking a patient that should be invariably followed. In gynæcological applications, the active electrode is next carried to its proper situation, and the indifferent electrode adjusted in contact with the body surface before the secondary circuit is closed, and the current is then gradually increased from zero to the strength desired.

Flemming's portable Faradic battery is set for its weakest current when the switch rests on the button marked 1, with the tube covering the iron core pushed in as far as it will go. The current is increased most gradually by withdrawing the tube slowly to the extent desired; the increase by moving the switch from 1 to 2, and so on, is much more abrupt, and is best done when the circuit is broken and the tube pushed in.

The Du Bois Reymond apparatus is set for its weakest secondary current when the outer coil is slid as far away from the inner coil as the space admits. A reverse action, *i. e.*, the sliding of the outer coil back over the inner, increases the current in the secondary coil in a very gradual manner. As the position for weakest secondary current corresponds to that for strongest primary inductions (a current, by the way, that I never use) a preliminary glance to see if the switches are right may

save the patient an unpleasant surprise.

Indications for the Use of Covered and Bare Electrodes with Faradic Currents.—The use of a moist conductor to convey the Faradic current through the skin to nerves and muscles beneath it is fully as important as in the case of the galvanic current; for, although the former current leaps from a dry metallic disc to the skin with great facility, and is therefore best adapted to the dry-brush method of stimulation, it expends its action at such times almost entirely on the dermic surface and nerve-ends, the polar region being extremely superficial. The moist covering permits a greater penetration and extension of this region; hence, a deeper action with less surface pain. Within moist cavities, however, the use of a moistened covering on the exposed conducting surface of the electrode is totally unnecessary, as the moisture of the cavity itself readily favors this distribution of the current. The bare electrode is, moreover, introduced into such cavities with greater ease. Such electrodes should, of course, be properly insulated, to protect the vulva and other parts not designed to be affected.

Experimental Comparison of the Electromotive Force or "Pressure" of the Faradic Current with that of the Galvanic Current.—This may be roughly done by touching simultaneously, with dry fingers, the bare terminal wires of a full-strength galvanic battery. No current is felt, since the sixty to ninety volts of pressure in such a galvanic current are not sufficient to make the current jump through the minute layer of air between the finger and the wire; moist fingers permit a little to get through. If, now, the dry fingers be simultaneously brought in contact with the bare terminals of a Faradic current of merely medium strength considerable tingling will result—its pressure is amply sufficient to cause it to leap through this air space.

There are two practical applications of this fact besides its demonstration of the main quality of electromotive pressure; one indicates the need of a more careful insulation of the Faradic

² A slowly-run dynamo also produces disconnected currents, but when running at full speed the inductions follow each other so rapidly as to become blended together into a truly continuous current.

current to prevent accidental shocks; and the other, the greater adaptability of this current for the electric brush application to the body surface. It should not be understood that the greater penetrating power of the Faradic current applies to good conductors, such as the moist tissues of the body, for here the galvanic current is most efficient, as the penetration is by conduction, not disruption. It is only in the disruptive penetration of poor conductors, such as dry cuticle and air, that the Faradic current shows greater power. Exact measurement of this volt force of Faradic currents are, unfortunately, wanting, but they probably vary from several hundred to several thousand volts.

Experimental Proof of the Inappreciable Volume of Faradic Currents.—Place a milliamperemeter in circuit with the secondary coil by including it directly between the poles of the battery, and turn on the full strength of the current, the meter will not show even the fraction of a milliamperemeter. The minuteness of its volume is also shown in its failure to decompose water, salts, or organic compounds, and in the practical absence of all tissue irritation, congestion or cauterization when it is passed through the body.

Action of the Faradic Current on Sensory Nerves and Muscles.—Notwithstanding the exceeding weakness of this current in "bulk" or "volume," the great requisite for usefulness in the mechanic arts, and in the chemical destruction and metamorphosis of tissue, a slight acquaintance with its action on any part of the body is apt to impart an exaggerated idea of its physiological powers. Being essentially a series of exceedingly abrupt current creations, its power to excite the functions of nerves and muscles is unique, and the manifest phenomena of pain and muscular contraction conceal its total inability to produce profounder impressions on the body. A nerve or muscle, brought within either polar region, is thrown into action as each induction arises, just as an abrupt variation of the galvanic current, whether a rise or fall, produces a similar phenomenon. Each induction produces a separate stimulus therefore,

and it is only when they follow each other very rapidly, as when a rapid interrupter is used, that the separate stimulations seem to blend together, producing a continuous contraction or sensation. Even then the impressions on the nerve are those of distinctly separated, though rapidly successive, currents.

The Faradic susceptibility of the sensory nerves of the limbs and trunk is fully shared by those of the pelvis, although the lessened sensibility of the normal uterine and ovarian nerves permits the employment of current strengths not bareable on the skin surface. The vulva, on the contrary, like other muco-epidermic junctions, is exquisitely sensitive to this stimulus, and should be protected from it in all ordinary applications by well-insulated electrode stems. The sensibility of the vagina is about midway between the two.

As to the therapeutic applicability of this current, there is no doubt whatever but that the muscular tissue of the vaginal sphincters, the uterus, the bladder and the urethra can be stimulated into tonic contraction by powerful and well-directed Faradic currents; and it is even possible that the muscular layers of the vaginal walls themselves may be controlled by it also to a certain extent. In the relief of neuralgic conditions of the pelvis, gentle Faradic currents are often most effective, and for this purpose I have found the positive pole (using an electrode of any kind of metal) decidedly preferable. For the muscular stimulation the negative pole is most effective. As a rule the electrodes required for galvanic applications may be used for this current, and a similar dispersion of current at the indifferent pole is advisable.

Beyond this neuro-muscular stimulation, with its therapeutic possibilities of direct and reflex effects, the Faradic current is powerless for either good or harm in gynecology. It needs no careful watching to avoid untoward cauterizations or unexpected shocks; and the best guide to the strength of the current to be used is the sensations of the patient, the current having been brought up from zero to this point after placing the electrodes in position, in the same

gradual manner as advised for galvanic applications.

Interpolar Regions Unaffected by Faradic Currents.—An outline of the limitations attending the use of this current is incomplete without the fact being indicated that Faradic currents are only effective in any way in the immediate neighborhood of the electrodes. That extensive region between them, within which a current of large volume produces profound interstitial changes, is, with currents of such slight volume, without physical impress of any kind.

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APHORISMS ON DISEASES OF CHILDREN.

Compiled and translated by

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From the French of E. Bouchut.

(Continued from the preceding number.)

239. It is the nature of some metastatic diseases to produce similar lesions in different tissues and parts of the body remote from each other.

240. The danger of ulcerative, gangrenous, and membranous angina is not always in the anatomical lesion, but in the general implication of the whole system, due to infection, by absorption, of the gangrenous and septic products.

241. The anatomical product of fibrinous angina is dangerous only when it obstructs the air-passages, constituting croup or diphtheria, mechanically causing asphyxia the same as any other foreign body.

242. A material, anatomical lesion never characterizes the nature of a disease; that is to say: There are false membranes and false membranes, as there is pus and pus.

243. False membranes may exist of any size in a child that is healthy and that will remain so; malignant and fibrinous inflammation alone secrete those endangering life.

244. Malignant angina, followed by croup, fatal on account of purulent, acute auto-inoculation, has no visible characteristics, although false membranes may mechanically obstruct respiration and engender anæsthesia more or less marked in character.

245. General inoculation of the system by malignant, ulcerative, gangren-

ous or fibrinous angina, produces desquamation of the uriniferous tubules, albuminuria, small hemorrhagic spots in the lung and sometimes small metastatic abscesses of the lung, the subcellular cutaneous tissue and nails.

246. Infection by malignant angina (diphtheria) is analogous to purulent infection (pyæmia).

247. General fever and asthenia, local ulceration, gangrene and membranous exudation in the throat, with or without odor, concurrent with dysphagia, engorgement of the cervical lymphatics and general infection of the system, characterize malignant angina.

248. When malignant angina is accompanied by cough and audible hissing respiration (laryngeal), with or without diminished sensibility, there is danger of the development of croup.

249. Ulcerative, gangrenous and fibrinous angina occurs in the sporadic or epidemic type; in the last case, always malignant.

DIPHTHERIA.

250. He who has seen diphtheria travel from town to town, from house to house, in the footsteps of the inhabitants, spreading from a limited locality and forming new epidemics (*i. e.*, foci of contagion), cannot for a moment question its contagious character.

251. Diphtheria is less severe in its results in adults than in children, but it may pass from the children to the parents and may devastate the whole family.

252. Diphtheria may kill the patient within twenty-four or forty-eight hours; its devastating course is the more rapid the younger the child.

253. "Would'st thou escape diphtheritic infection? then," says Carnevale: "Depart from its vicinity quickly; travel far from it and return at the latest moment."

254. If the first manifestation of diphtheria can be entirely destroyed, nipped in the bud as it were, by thorough cauterization or by excision of the tonsils, infection of the system may be prevented and the disease quickly cured.

255. When true diphtheria is once established, death takes place by pyæmia or septicæmia, or by occlusion of the air passages by the membrane.

GANGRENE OF THE MOUTH.

256. Gangrene of the mouth, exclusively a disease of infancy, is always the result of impoverishment of the system by former diseases, such as measles, scarlatina or typhoid fever, recognized as the determinate cause of such, from aphthous or ulcerative inflammation of the buccal membrane.

257. Ulcerative stomatitis and aphthæ of the cheek are often the foci of gangrene of the mouth in infants thus predisposed.

258. Painful and tense swelling of the cheek at the line of the lower jaw, in a child having ulceration of the buccal mucous membrane, portends gangrene of the cheek.

259. Painful swelling of the cheek, with extremely fetid saliva and enlargement of the submaxillary glands, indicate the commencement of gangrene of the mouth.

260. When gangrene of the mouth extends and involves the cheeks, a small blister appears under the skin, which becomes first purple, then black, of greater or less extent; an eschar resulting, the whole thickness of the skin and the gums mortifying so as to expose the bone.

261. In gangrene of the mouth, the teeth deprived of their support, the gums, become loose and fall out, the maxillary bone being exposed.

262. Gangrene of the mouth, at first limited to one side of the face, rapidly extends and involves both sides of the face, eating away all of the integuments even to the eyelids.

263. Children afflicted with gangrene of the face suffer but little, the thirst is slight, the appetite is good and there is no fever noticeable.

264. In advanced stages of gangrene of the mouth, stupor intervenes, with great prostration, excessive pallor, marked weakening of the pulse and cold extremities, indicative of blood-poisoning.

265. In gangrene of the mouth, death results, as a rule, from lobular pneumonia or from the absorption of pus (pyæmia).

266. Gangrene of the mouth is often accompanied with gangrene of the vulva and anus.

267. Gangrene of the mouth is cura-

ble, but only when its ravages have extended but slightly; even then it leaves cicatrices, greatly altering the symmetry of the features.

268. Chlorate of potash internally, quinine, arseniate of soda, proper alimentation, and cauterization with acid or the hot iron, are methods in common use to arrest, limit and cure gangrene of the mouth.

269. A gaping mouth, with dry and purple lips, indicates ulcerative stomatitis.

270. Cauterization quickly cures internal ulceration of the mouth.

271. Aphthæ, becoming gangrenous, are always the point of departure of gangrene of the buccal walls.

272. Gangrene of the mouth usually occurs in weak infants, poorly-nourished and lymphatic, the victims of poor hygienic environment.

273. Gangrene of the mouth is sometimes epidemic.

274. Gangrene of the mouth often exists concurrent with gangrene of the anus and the genitals.

275. Gangrene of the mouth is marked by fetid breath, peculiar to this disease and known as gangrenous.

276. Excessive fetor of the mouth, with acute and circumscribed swelling of the face, indicates an approaching invasion of gangrene.

277. Gangrene of the mouth, extensively involving the skin of the face, is fatal.

278. Gangrene of the mouth, spreading over the face, leads to mortification of the gums, falling out of the teeth, and necrosis of the maxillary bone.

279. Gangrene of the mouth is curable only at its first appearance, and then only by deep cauterization repeated several times daily.

280. Hydrochloric acid, applied with a brush, is preferable to all other caustics in the treatment of buccal gangrene.

THRUSH.

281. A special form of inflammation of the mouth, modifying the secretion of mucus, rendering it acid, engenders thrush.

282. Thrush is characterized by an albuminoid concretion, filled with "oidium albicans," forming on the surface of the mucous membrane of the mouth.

283. Small, white granulations, discrete or confluent, resembling flakes of curdled milk, scattered throughout the mouth, characterize thrush.

284. Thrush is rarely a primary disease in infants.

285. Thrush commonly appears at the end of every severe acute disease, and during the course of chronic maladies.

286. Thrush ordinarily indicates a severe general disease or an impoverished condition of the system.

287. Thrush occurring during the course of chronic maladies, in those of mature years, usually portends imminence of death.

DIARRHŒA.

288. Diarrhœa, in children at the breast, is sometimes independent of inflammation or other material lesion of the intestine.

289. In children, diarrhœa is often a catarrh, due to cold, or mental impressions, poor hygiene, over feeding, or from indiscretions and mental impressions of the nurse.

290. Diarrhœa, in children, is often sympathetic with inflammation of the mouth during dentition.

291. Diarrhœa is very common in bottle-fed children. A rule without exception.

292. Too much milk or irregularity in feeding invariably produces diarrhœa.

293. Diarrhœa, unaccompanied by fever, with yellowish, homogeneous stools, is generally of slight importance.

294. Yellowish stools, turning green when exposed to the air and to the action of the urine, are not of serious import.

295. Stools of a yellowish-green color or variegated, with clots of casein, indicate serious irritation of the intestine.

296. Copious, serous stools are always of serious portent.

297. Bloody stools in children, with intestinal hemorrhage, are very grave symptoms.

298. Diarrhœa, accompanied by fever and of long duration, indicates enterocolitis.

299. Diarrhœa, simulating cholera, indicates the existence of a very severe enterocolitis.

300. Ordinary, acute, intestinal catarrh, spasmodic in its occurrence, can be and should be easily and quickly cured.

301. Chronic diarrhœa, in infants, leads to enlargement of the abdomen—bloating—due to tympanites, and also causes swelling of the mesenteric glands.

302. Simple intestinal catarrh, if allowed to run on, always engenders intestinal inflammation.

303. It is an unsound doctrine to allow the diarrhœa accompanying teething to go on unchecked or to encourage it.

304. Every case of diarrhœa, even the slightest, ought to be treated, at once, with remedies capable of checking it.

305. The cure of diarrhœa can often be effected by simple change of nourishment or by regulation of the hours of nursing, making them less frequent.

306. A variety of foods should be tried until that is found which is best adapted to the needs of the child.

307. Diarrhœa resulting from too early indulgence in solid food is quickly cured by a return to milk diet.

308. Simple intestinal catarrh may be cured by baths; astringents, internally; sub-nitrate of bismuth and opiates, the latter given carefully in all cases, whenever used, for whatever purpose.

ENTERO-COLITIS.

309. Inflammation of the digestive tract, in the infant, occurs most commonly in the large intestine, less frequently in the small intestine and very rarely in the stomach. The name of "entero-colitis" which I (Bouchut) have given it is therefore not a misnomer, but well merited.

310. Enterocolitis is the natural result of a poor regimen, poor breast milk, bottle feeding, premature use of solid foods, fats and other articles, and indigestion aggravated by indiscretions in eating and in action by the mother.

311. Fever; vomiting; green stools, clotted or serous; emaciation and flabbiness of the skin are indicative of enterocolitis.

312. Blanching of the face and dejection of the countenance prognosticate an impending attack of acute enterocolitis.

313. A leaden pallor and waxiness of the visage, with flabbiness of the skin and sinking in of the eyes and jaws, indicates acute entero-colitis of a choleric form type.

314. A child at the breast, having excoriations on the buttocks, the interior of the thighs and the malleoli, is suffering from entero-colitis, acute or chronic.

315. An enlarged abdomen with even-
tration, that is, general relaxation of the abdominal walls and viscera, indicates chronic entero-colitis.

316. A terrified countenance, aged and shriveled, in a young child, indicates entero-colitis.

317. Acute entero-colitis passes very easily and very quickly into a chronic enteritis.

318. Chronic entero-colitis, complicated by the concurrence of thrush, is of very grave portent.

319. Rapid and complete blanching of the color of the face, extreme and deep sinking of the orbits, following severe diarrhoea, foretell very great danger and probable death.

320. Chronic enteritis, of an ulcerative character, is nearly always fatal.

VARIOLA.

321. Variola attacks its victims according to their susceptibility; "it goes in through the blood and comes out through the skin."

322. The susceptibility to variola varies with age; it is great in the foetus in utero, slight in the new born, very great during infancy, growing less in the adult and entirely absent in the aged.

323. Variola is often congenital.

324. Intra-uterine variola is, as a rule, inevitably fatal.

325. Variola is epidemic and contagious.

326. Variola may run a regular or irregular course, be discrete or confluent, benignant or malignant.

327. Variola in young children is almost always discrete, but often irregular, this fact making it of grave character.

328. A convulsion suddenly occurring, followed with fever and vomiting, in a child, who has not been vaccinated, suggests variola.

329. The susceptibility to variola is

neutralized by inoculation with vaccine virus.

330. Variola, once established, follows the course marked out by nature with fatal accuracy; the eruption of pustules, upon the skin, cannot be prevented, except to a very limited extent.

331. Broncho-pneumonia is a very frequent and a very unfortunate complication of variola in children.

332. To properly treat simple, discrete and regular variola, energetic medication should be discarded, the physician contenting himself with prescribing rest and emollient beverages the patient being placed in the midst of a pure, mild atmosphere.

333. The pustules should be aborted with proper applications of cerates, oils or collodions.

334. The complications of variola alone demand prompt and energetic action.

MEASLES.

335. Fever, accompanied with redness of the eyes, weeping, coughing and sneezing, is a premonitory symptom of measles.

336. Red spots, irregular, slightly raised and disseminated over the whole surface of the body, accompanied with fever and followed by furfuraceous desquamation, characterize measles.

337. Measles, beginning with convulsions, is always of grave portent.

338. Measles, uncomplicated by bronchial catarrh, always terminates favorably.

339. Measles, accompanied by bronchial catarrh, is often complicated by pneumonia.

340. The pneumonia of measles has a specific character, peculiar to itself, which modifies its development and renders it of very grave portent.

341. The pneumonia of measles is usually lobular and very often fatal.

342. The pneumonia of measles has a greater tendency than ordinary pneumonia to engender semi-translucent miliary granulations peculiar to phthisis.

343. Cases of measles of abnormal character are always of grave portent owing to the occurrence of sudden and unexpected complications.

INTERMITTENT FEVER.

344. Intermittent fever, in children,

differs greatly in character from that of adults.

345. The attacks are quotidian, occurring at indefinite hours, and there are only two well-marked periods, that of heat and that of perspiration.

346. In intermittent fever, in children, the chill is entirely absent, being placed by a sort of concentration of forces indicated by general and momentary blanching of all the tissues.

347. In children, as in the adult, an attack of intermittent fever, present or past, often brings about enlargement of the spleen, rendering this organ apparent to sight and touch as a tumor in the anterior abdominal wall.

348. In young children, and especially in the second infancy, a form of intermittent fever occurs, analogous in every point to pernicious fever, being considered as such.

349. After the third year of life and during the second infancy, intermittent fever is of the typical character, with well-marked onset and three stages, as in the adult.

350. During the second infancy, intermittent fever may be symptomatic of various visceral lesions, especially of pulmonary tuberculosis.

351. Simple intermittent fever is, as a rule, easily cured; it may however determine very grave cachexies with œdema of the limbs and cutaneous hemorrhage.

352. Cinchona easily cures intermittent fever in young children; during infancy, the bark is the better remedy; but during the second infancy, sulphate of quinine takes the first rank.

ERYSIPELAS.

353. Erysipelas, in the new-born, is very frequent during epidemics of puerperal fever, often resulting from this epidemic influence, almost always breaking out at some cutaneous wound, especially that resulting from the cutting of the umbilical cord.

355. Erysipelas in the new-born is almost invariably fatal.

356. Erysipelas in children becomes of less and less grave portent as it occurs at a period remote from the first month of life; during the second infancy the danger is no greater than that of erysipelas in the adult.

NÆVUS.

357. There are two kinds of nævi: pigmentary and vascular. These are congenital alterations of tissue produced by the accumulation of pigment, and the increase to a greater or lesser extent, in number and volume, of the capillaries of the skin and their transformation into a spongy, erectile mass.

358. Pigmentary nævi never disappear, and erectile nævi almost always persist.

359. If an erectile nævus increases in size too rapidly and threatens to burst, it is best to destroy it *in toto*, or to transform it into tissue not liable to vascular degeneration.

360. Nævi become transformed into fibro-cellular tissue under the influence of vaccination, or antimonial (?) inoculation, or acupuncture, followed by caustic injections. They also disappear, forever, when attacked with caustics, such as Vienna paste.

SCLEREMIA.

361. Scleremia (induration of the cellular tissue) caused by insufficient nourishment, inanition and cold, results from some obstacle which checks the circulation in the cutaneous capillaries.

362. Scleremia is a disease peculiar to the new-born, occurring very rarely during the second infancy or in the adult.

363. Scleremia exists with and without œdema of the subcutaneous cellular tissue.

364. Scleremia may be general or partial.

365. Clamminess and harshness of the skin, with a marked reduction of the temperature, characterize scleremia.

366. In the new-born, acute, single, feeble and frequent cries, repeated every minute or two, are indicative of scleremia.

367. Scleremia almost always terminates in pneumonia.

368. Scleremia of the new-born is generally fatal.

369. Partial scleremia is sometimes cured, but general scleremia never.

370. Scleremia is less and less of dangerous import as it occurs at a remote period from birth.

371. Scleremia is essentially a disease of the new-born, but it is sometimes met with in the second infancy

and in adults under the form of thickening of the skin.

MUMPS.

372. Pain, with swelling of the parotid glands, in an infant, otherwise well, constitutes mumps.

373. Mumps lasts from five to eight days and terminates by resolution.

374. An epidemic influence, of unknown character, is the cause of mumps.

375. Mumps occurs more frequently in boys than in girls.

376. Pain in the testicle, in boys, or in the breast, in girls, occurring during an attack of the mumps, marks the metastasis of the disease to the testicle or breast.

377. Dry and warm applications suffice to cure the mumps.

378. Pain, with swelling of the parotid glands, in a child, suffering from fever, indicates an attack of parotiditis—a form of mumps.

379. Parotiditis almost always terminates in suppuration.

380. The majority of children attacked with parotiditis die.

OTITIS.

381. Sudden pain in the ear, followed by running of the ear, indicates acute otitis.

382. Escape of pus from an excoriated, auditory passage, and dulness of hearing, indicate chronic otitis and otorrhœa.

383. Little bones, or fragments of bone, expelled with and in pus, through the external auditory canal, are indicative of internal otitis, perforation of the tympanum, necrosis of the bone and incurable deafness.

384. Acute diseases often leave, after their apparent departure, a humoral state favorable to the development of otitis and otorrhœa.

385. Foreign bodies, introduced into the ear, or insects, or the larvæ of insects, developed in the external auditory passage, always give rise to otitis of a dangerous character.

386. Internal otitis and deafness often follow tuberculization of the temporal bone.

387. Meningitis, following in the course of an internal otitis, is the result of the extension of the disease of the ear to the membranes of the brain.

388. Intermittent convulsions and

transient paralysis, occurring during otitis, caused by a foreign body, or an insect in the ear, are sympathetic complications.

389. Facial hemiplegia, occurring in the course of otitis, is a symptomatic phenomenon, indicative of disease of the temporal nerve and disintegration of the facial nerve.

390. To extract foreign bodies from the ear use astringent injections, and treat the otitis with iodide of potash, arseniate of soda, oil, etc.

RACHITIS.

391. Rachitis and osteomalacia form one and the same disease, modified only by the age of the individual.

392. Rachitis is osteomalacia in an infant.

393. Persistence of the fontanelles and retarded eruption of the teeth indicate the development of rachitis.

394. Enlargement (knotting) of the articulations with curvature of the diaphyses of the long bones characterize the second stage of rachitis.

395. These nodes, when accompanied with an inability to stand, or to walk, together with pain and softening of the bone, are characteristic of general rachitis.

396. Rachitis is an obstructive disease which retards the onward movement of development and growth, and arrests it at that stage which it has reached.

397. To rachitis is due the great number of deformities of the skeleton, of the head, the limbs, the thorax and the pelvis.

398. An antagonism often exists between rachitis and tuberculosis.

399. Rachitis may be induced at will by poor regimen and hygiene.

400. The premature use of meat and fatty or farinaceous foods, by inducing chronic enteritis, has caused more cases of rachitis than the most exclusive and absolute milk diet.

401. Deprivation of air, exercise and light, add greatly to the effects of bad food and poor nourishment in the production of rachitis.

402. The use of milk, butter, bouillon and light broths, aided by plenty of fresh air and sunlight, often suffice to effect a cure of rachitis.

403. Cod-liver oil (30 grammes daily) is almost a specific in rachitis.

RHEUMATISM.

404. Rheumatism is an inflammatory diathesis localized in the fibrous tissue.

405. There is an articular rheumatism, cardiac rheumatism, cerebral rheumatism, pleuritic rheumatism (pleuro-pulmonaire).

406. In children, rheumatism usually occurs in several joints and if simple, without complications, it is easily cured.

407. Rheumatism, confined to one joint (mono-articulaire), is very dangerous because of its long duration, frequently terminating with suppuration.

408. Rheumatism, of infancy, is sometimes associated with a general disease, variola, scarlatina or typhus, making it of especially grave portent, because of the probability of suppuration of the articulations.

409. Rheumatism of the brain, of the pleura and of the heart, never occur except as complications of articular rheumatism.

410. Slight pain, fever, with painful swelling and sometimes redness of the joints, passing from the one to the other, characterize articular rheumatism.

411. Chronic rheumatism is very rare in children.

412. Rheumatism yields very quickly when of an acute and general character to sulphate of quinine and, better still, veratrine.

GROWTH.

413. Growth is one of the most curious manifestations of motor force, which rules, directs and co-ordinates the creation and development of organized beings.

414. Growth takes place in accordance with absolute and regular laws, varying in each climate, in each race and in each sex, perverted only by disturbances incited in each organism by disease.

415. Diseases of youth always accelerate the movements of growth.

416. The growth resulting from the action of the diseases of youth is not so rapid as one would believe, at first sight; it is always greater in appearance than it is in reality.

417. The influence of disease upon growth ought to be directly proportion-

ate to the febrile disturbance which accompanies it.

418. Exaggerated growth acts in its turn as an ulterior cause of disease and may, as a result, cause pulmonary, cardiac or paralytic affections.

PURPURA.

419. Purpura is a hemorrhage of the skin, the mucous membrane and viscera, due to loss of plasticity of fibrine.

420. Miliary hemorrhages of the skin and subcutaneous ecchymoses, with or without fever, characterize purpura simplex.

421. Miliary hemorrhages from the skin, subcutaneous ecchymoses and escape of blood from the mucous membranes of the mouth, the nose, the lungs, the stomach, the bladder, etc., with or without fever, are indicative of hemorrhagic purpura.

422. Purpura may be idiopathic, but more often it is due to a disease of a typhoid, virulent or toxic character, or one that has become chronic, in its last stages.

423. Purpura, occurring in the course of a state of marasmus consequent upon a chronic disease, prognosticates immminence of death.

424. Simple purpura is easily treated; but it is not so with hemorrhagic purpura, which, by the loss of blood alone, may cause death.

425. The best remedy against purpura is perchloride of iron.

DIPHTHERIA.

426. A specific, ulcerative inflammation of the skin and mucous membrane, giving rise to infection of the system, characterizes diphtheria.

427. In diphtheria, the ulceration and gangrene existing beneath and around the false membranes is of more importance than the membranes themselves, for to this is due the erosion of the capillaries which brings about the absorption of putrid matter and the engorgement of the lymphatic glands.

428. The false membranes, themselves, are of slight importance, other than that when formed in the respiratory passages they form a mechanical obstacle to breathing.

429. There may be false membranes, without diphtheria, in a great many wounds, and they may be produced at will in healthy subjects; but there is

no well authenticated case (assertions to the contrary, notwithstanding) where diphtheria has existed without false membranes.

430. False membranes, without diphtheria, constitute a benign, non-infectious diphtheritis.

431. True diphtheria is infectious and malignant, and rapidly extends, accompanied with erosion, ulceration and gangrene of the tissues, with general infection of the organism.

432. Benign angina, uncomplicated by diphtheria, resembles benign diphtheritic angina. Croup is in fact simply an extension of this combination of lesions, the complications of infection being absent.

433. In true diphtheria there is a suppurative, ulcerative inflammation of the tonsils, the velum palati, the nasal fossæ and sometimes the respiratory passages and vocal organs, with swelling of the lymphatic glands of the neck and with albuminuria.

434. While the specific ulceration of diphtheria ordinarily shows itself upon the nasal, buccal and bronchial mucous membrane, it also appears upon the skin, wherever denuded of the epidermis, by impetigo, blisters, burns or any kind of wounds.

435. Buccal and tonsillar diphtheria, accompanied with cough, hoarseness and wheezing, is developing into croup, and if at the same time there is a progressive loss of sensibility, asphyxia is threatened in the train of sequences.

436. Asthenia and sudden decoloration of the gums, the lips and the face, prove beyond a doubt that general infection of the organism has taken place and death is imminent.

437. Diphtheria, sometimes sporadic, more often epidemic, plays the rôle and possesses the characteristics of all infectious and contagious diseases.

438. Diphtheritic tonsillitis is only an anatomical phase of malignant angina or gangrene of the throat.

439. Diphtheria, at first a local affection, which can be easily destroyed, *in situ*, by cauterization or excision of the tissues infected, becomes, more or less rapidly, a general disease, by absorption of putrid products engendered by it.

440. If cauterization or excision of

the parts affected with diphtheria is accomplished thoroughly, and immediately, at the moment of invasion, the evil consequences of the disease may perhaps be averted.

441. Diphtheria is a general, infectious disease, only as it becomes so by the entrance of putrid and gangrenous elements into the blood and other fluids of the body.

TYPHOID FEVER.

442. Typhoid fever is a general, epidemic disease, sometimes contagious, which enters into action upon the whole body and modifies the blood, the intestines, the spleen, the lungs and the brain.

443. In infancy, typhoid fever may exist with lesions of the intestine, such as occur in simple enteritis and in several other diseases of a different nature.

444. The lesions of typhoid fever, in infancy, are: hypertrophy of the solitary and aggregated glands of the intestine, ulceration occurring only in serious cases, swelling of the glands of the mesentery, and congestion of the spleen, the lungs, and brain.

445. Of all congestions of typhoid fever, that of the lung is of most grave portent, for it induces lobular hepatization, broncho-pneumonia and fatal asphyxia.

446. Typhoid fever in children is never twice alike. There are as many different combinations, typical peculiarities, and special differences as there are patients.

447. Typhoid fever presents itself in so many protean forms that its recognition by symptomatic signs is often difficult.

448. Continued fever, with lack of appetite, diarrhœa or constipation, pain in the right iliac region, with loss of vital energy, pallor and immobility of expression, characterize typhoid fever of the mucous type.

449. Continued fever, with redness of the face, vascular turgidity of the skin, constipation or diarrhœa, pain in the right iliac region, epistaxis and prostration, characterize typhoid fever of an inflammatory type.

450. Fever with uneasiness, delirium, dejection, stupor, bloating of the abdomen, pain in the right iliac region, coma, diarrhœa, voluntary or involun-

tary, rose-colored spots on the abdomen and chest, dryness of the tongue and blackness of the lips, characterize asthenic typhoid. On the other hand, it is ataxic, when, to these phenomena, is added muscular tremor, floccitation, coma and furious delirium, which nothing can moderate.

451. Typhoid fever accompanied with periodical, quotidian, febrile exacerbations, or other regular intermittent symptoms, constitutes remittent fever. It calls for quinine.

452. Frequent cough, accompanied with dyspnoea, supervening during the course of typhoid fever, indicates lobular pneumonia.

453. If thrush intervenes during the course of typhoid fever, a fatal result may be expected.

454. The vomiting of green matter, with chilliness and clammy skin, weak pulse, cyanosis and violent pain in the abdomen, indicate perforation of the intestine and portend death.

455. Hiccough, occurring in the course of typhoid fever, is usually a symptom of fatal portent.

456. Coma, occurring in typhoid fever, in infants, is almost inevitably fatal.

457. The enormous ulcers produced in the course of an asthenic typhoid fever seldom fail to kill the child.

458. Diarrhoea persisting in children having typhoid fever, but otherwise in good condition, indicates grave, enteric complications.

459. Inanition, prolonged for a long period, in typhoid fever in children, always leads to grave, nervous lesions and sometimes induces uncontrollable nervous vomiting.

460. Good nourishment is an essential point in the treatment of typhoid fever in children, and it should be commenced early in the disease.

461. At the commencement of typhoid fever, before it has taken definite form, an emetic or a purgative may completely divert the disease, or at any rate retard its further progress and favor the cure.

462. An emetic of sulphate of soda, aided by baths, acid and vinous drinks, by sulphate of quinine and suitable diet, will suffice in many cases to cure typhoid fever.

SCROFULA.

463. Scrofula is a diathesis giving rise to sub-acute or chronic swellings of all the organs which have a tendency to develop into tubercle.

464. In scrofula there are three stages which correspond to as many periods, namely: primary, secondary, tertiary.

465. Primary scrofula is characterized by an alteration of the lymph, inducing an alteration of the structure of the various organs, where the scrofulous diathesis first "wakes up."

466. Secondary scrofula is characterized by the development of scrofulous ulcers on mucous surfaces, in the glands, in serous tissues, in the skin and cellular tissue, in the different viscera, in the bones, etc., the result of latent or chronic inflammation of these parts.

467. The inflammation, typical of the second stage of scrofula, has a special course, slow, subacute and giving rise to serous suppuration, prolonged or resulting in cold, stationary ulcers of unlimited duration.

468. Tertiary scrofula is characterized by the formation of tubercles in the parts previously affected by secondary scrofula.

469. Tubercle in every form ought to be considered a result of scrofula.

470. Tubercles are always the product of a metamorphosis of prior scrofulous exudations, which have retrograded, that is to say, have died and fallen into a state of molecular degeneration.

471. These tubercles are often the sequelæ of acute maladies or eruptive fevers of earlier years.

472. Inasmuch as fibro-plastic granulations, the products of inflammation, transform themselves into tubercles, it is evident that tuberculization is the consequence of an inflammatory state.

473. Scrofula is almost always born with its victims, various external conditions causing it to develop at some subsequent period.

474. Scrofula transmits itself from the parents to the descendants, sometimes in a similar form, sometimes with different characters, metamorphic forms of hereditary scrofula.

475. When scrofula develops for the first time, in a generation, it is always the consequence of deprivation, indigence, bad regimen, unhealthy habita-

tions, dampness, absence of air and light or following eruptive diseases.

476. The tuberculous diathesis and the scrofulous diathesis, formerly considered as different, are one and the same.

Charles Everett Warren, M.D.

TRANSLATIONS.

TYPHOID FEVER IN CHILDREN.—If the diarrhœa is very frequent give betanaphthol and salicylate of bismuth, each, $37\frac{1}{2}$ grains, to be divided in ten powders and one administered every hour, dissolved in a little milk. So given, the medicine is well borne and is not repulsive. If the diarrhœa is less, the naphthol is given alone. If there be a tendency to constipation, the following is given:

R Naphthol. gr. xxxviiss.
Salicylate of
magnesia. gr. xxxviiss. to gr. lxxv.

Divided into ten powders and administered as above.—*Revue de Thér.*

SACCHARINE was discussed by Constantine Paul at the Academy of Medicine, July 10th. The conclusions arrived at were that saccharine should not be considered as an aliment, but solely as a medicament. In this sense, saccharine possesses some special antiseptic properties which render it valuable in the antiseptics of diseases of the mouth, stomach, and perhaps of the urinary tracts.—*Bul. de L'Acad. de Med.*

INCONTINENCE OF URINE. (Hamon).—

R. Tincture of rhus aromatic 20 drops every night in a glass of water.

—*Revue de Thér.*

HYPODERMIC INJECTIONS OF SALT WATER.—The statements of Cantani concerning the treatment of Asiatic cholera by subcutaneous injection of salt water have suggested that the same treatment might be used in other grave conditions that cause failure of the heart. A solution of 6 in 100, of which 5 to 20 grammes may be used, is employed. No inflammation or abscess has been known to follow this, and after 20 to 30 grammes have been injected a marked improvement in the pulse is noticed, which continues for some hours. This treatment is indicated in the following cases: 1. Severe collapse. 2. Weakness of the

heart. 3. Gastritis. 4. Acute enteritis. 5. Pulmonary, stomacic or intestinal hemorrhages. 6. Cachectic states.

—*Bul. Gen. de Thér.*

IODOFORM INTOXICATION.—M. Duret points out that there are three distinct forms of intoxication by this remedy: 1. The eruptive; 2, the cerebral or delirious; 3, the syncopal or hyperthermic. The eruptive form is the most frequent and has been studied in the thesis of Brun and in various German papers. It is characterized by a rubeolous eruption, showing upon different parts of the body and distant from the point of application. The toxic principles of iodoform are absorbed and it is probably their elimination by the glands of the skin that causes the eruption.

The cerebral form is characterized by epileptiform attacks or by insomnia accompanied by delirium. Many cases of this kind were seen in the clinic of M. Verneuil.

The syncopal form is the most serious; the absorption of iodoform is followed by subnormal temperature and chilliness. The temperature falls to 36° centigrade, and sometimes to 34.6° . M. Duret remarks that these symptoms usually cease when the iodoform is discontinued and recommends that it be employed with caution, in view of the accidents which may arise. Besides, in certain cases, iodoform has all the disadvantages of other inert powders, such as cinchona, etc. It provokes lymphangitis and phlegmon. He twice observed some inflammatory action in wounds of the fingers and hand, which ceased as soon as the iodoform was suspended.

—*Journal des Sciences Med. de Lille.*

HYDRATE OF AMYL IN CARCINOMA CONNECTED WITH UTERINE AFFECTIONS.

(Fischer)

R Hydrate of amyl. 7 grms.
Distilled water. 60 grms.
Ext. of licorice. 16 grms.

M.—Take half upon retiring, the rest in the night. In case of gastric intolerance, prescribe the following draught:

R Hydrate of amyl. 4 grms.
Chlorhydr. of morphine. ... 0 grms. .025
Distilled water. 50 grms.
Mucilage of gum arabic. 20 grms.

Administer warm at bed time.—*Gaz. de Gyn.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, AUGUST 15, 1888.

EDITORIAL.

INSANITY AMONG THE TEUTONIC RACES.

THE *American Journal of Insanity* for April contains a very interesting article upon the above topic, by the Assistant Physicians of the Illinois Eastern Hospital for the Insane. Special attention is called to the frequency of mental alienation among our citizens of foreign birth. The depressive types of insanity are said to occur most frequently among those of Teutonic extraction, and least among the Celts; while mania is most prevalent among the latter.

There are some grounds other than *a priori* reasoning for believing that this may be the case. It would add to the interest of the paper, however, could we know by what rules the classification of races was made. In the present commingling of peoples it is by no means easy to select a pure specimen of any given type. The Irish may be classed as Celtic; yet the admixture of Norman, Scotch, and Saxon is very large in numbers and still more important in other respects. The descendants of the Normans who settled in Ireland, became "more Irish than the Irish themselves." In other words, the physical and mental superiority of that race was so marked that, when improved by grafting upon the native Irish stock, it at once took the lead in the affairs of Ireland. The great Irish leaders in war, their statesmen, orators, and poets, sprang largely from the Norman-Irish stock.

The Scotch-Irish element in Ulster produces men of the A. T. Stewart type, who are never seen among the happy,

careless Corkonians or the somber peasantry of Connaught, whose blood is more purely Celtic.

The influence of Cromwell's conquest is shown in the prevalence of names which, like the long, muscular bodies of their possessors, recall the famous Ironsides who were settled upon confiscated lands, from which the owners were driven, "to hell or Connaught."

In Germany there is a certain admixture of Slav blood, from Poles, Bohemians, Wends, Slovenians, etc.; the last two of which have been assimilated by the Germans, but still modify their features and mental characteristics notably.

A physician in this city states that he comes from a village in Germany, whose inhabitants have been Wends for 700 years. Although they speak only German, their dark hair and eyes, smooth, insinuating manner and musical voice, are quite unlike the typical German of the day.

In France the Normandy peasant still shows marked differences from the other French; the Gascon's traits dimly recall his Gothic ancestors; but in general the Germanic conquerors have been swallowed up in the mass of the Celtic population. France is, perhaps, to-day more Celtic than any other part of the world, excepting Wales.

As for Italy, what have we of the old Roman blood? Even in the time of Scipio Africanus, he characterized the Roman populace as the descendants of Africans and Asians of many races, whose parents he had brought in chains to the Eternal City, while the Roman veterans had been transplanted to military colonies in all parts of the empire. In later days, every fresh swarm attracted to Italy by her wealth brought to her population a new element, and decimated all which preceded it. If we may judge by the language, however,

the conquerors of Italy have not proved more permanent than the English in India, where the latter race becomes extinct in three generations. None of the other descendants of the Latin tongue approach as nearly to the language of Cicero as does the modern Italian.

Clearly, we must look beyond the mere fact of the birth-place before we classify a subject ethnologically.

But in the conditions under which men now live we may find a more substantial basis for argument. It has been frequently remarked that the majority of shocking crimes, those whose atrocity suggests insanity, are committed by Germans. We refer to such horrors as that of Probst.

The system of universal compulsory education in operation in Germany may be in a measure responsible for this. The capacity of the human brain for the reception and retention of information is not an invariable quantity, and the subjection of all children to the same system of education is about as scientific as the method of Procrustes. In some cases the point of saturation is soon reached, and the further continuance of study only causes perplexity. Some brains imbibe knowledge much more slowly than others, and if these subjects are compelled to keep up with their classes, it is apparent that some derangement of the delicate cerebral apparatus may result.

We may at some period in the far-distant future reach such a degree of enlightenment that the teaching of each of our children will be suited to his capacities and directed towards making him useful in his future sphere; so that he whom Nature designed for a carpenter shall waste no time on Greek roots, but shall rather consider the veritable roots from which come the materials for his future labors, and that he

to whom a pint mug of capacity has been given may not be compelled to swallow a gallon of mental pabulum.

To this mechanical system of education add the demoralization due to spending the best years of one's life in the army, the severity of the struggle for existence in Germany, and, withal, the want of that flexibility which enables an American to turn his hand to any occupation which offers, and the reasons why German intellects become so frequently unbalanced, become more tangible.

W. F. W.

THE CONGRESS UPON TUBERCULOSIS.

IF the reports in the secular press are to be trusted, the Congress devoted its time almost exclusively to discussing the etiology of tuberculosis. This is somewhat surprising, as the discussion must have been extremely one-sided, if, as is reported, there was but one man out of 450 who did not accept the transmission of the disease from cattle as a verity. Such unanimity is unusual in medical circles, and can only have arisen from the overwhelmingly convincing nature of the proof submitted. We are pleased to see that the stand we took early in the season, as to the objections to milk as a diet, is being confirmed. It seems as if, in truth, when attention was once directed to the subject, a most fruitful field for observation was opened up. The question of heredity is also made somewhat more perplexing, by the difficulty of eliminating such sources of tubercular infection as suckling with infected milk.

The practical outcome of the labors of the Congress appears to be summed up in the direction to "Eat your meat well done, and use no milk except such as has been well boiled."

Nothing was developed concerning the treatment, but a wise suggestion was made by an American delegate, that sanatoria should be established for the special study of this disease and of the various methods of treating it. When we reflect how large a proportion of the human race fall victims to the tubercle bacillus, it is remarkable that such institutions have not been already established.

W. F. W.

CHARITIES, REAL AND NOMINAL.

THE English journals are beginning to awaken to the abuse of so-called charities in the guise of hospitals. The Medical Press adverts to the class who "only know that to give money profusely in charity is the correctly respectable thing to do, and that the most gratifying way of doing it is to lavish a big sum upon the institution which—in the begging columns of the *Times*—presents the most imposing array of fashionable names and asks for the largest amount of money." These strictures may be not wholly inapplicable on this side of the Atlantic. It is a notorious fact that the extravagant management of some hospitals, which do little or no really charitable work, is sustained by generous gifts, which would be of the greatest value to more deserving institutions.

PHENACETINE.

THIS new antipyretic bids fair to have a longer lease of life than its immediate predecessors. It has proved efficient in pneumonia and other pulmonary febrile states. It is not soluble and is best administered in pill. Ten grains produce definite results, but it is best to administer two to three grains at each dose, repeated frequently. In the case of children it has proved safe and quite efficient. In hectic the effect is not as good as that of acetanilide.

The temperature of malarial fevers and that of health are unaffected by phenacetine. Whether it will prove as efficient an analgesic as antipyrine may be doubted, though some reports appear to show that it is not devoid of value. We have used it in one case of pneumonia with good results. In one case of pneumonic phthisis the effect was favorable. The absence of any deleterious action should render phenacetine especially suitable in typhoid fever; in which it should receive a trial.

In sciatica and lumbago of long standing, and in gastric neuroses attendant upon structural lesions, it has given relief, when administered in a single large dose.

In another place we print a report concerning the Norristown Asylum, which, if not clearly disproved, throws such a light upon its management as to render any other answer to Dr. Corson's letter quite superfluous.

We receive such reports, however, with a very large grain of salt. The abuses of insane asylums have always been attractive subjects for the purveyor of sensations, and under his hands the story rarely lacks for interest.

We sincerely trust that when the facts are plainly laid before the public, it will be found that there is not much in the case. Still, the story of lax and incompetent management is exactly what is to be expected when the affairs of an institution are in the hands of a non-resident Board.

One point which is significant is that the Board appears to have the appointing and discharging of nurses. The necessity for the full control of these persons being in the hands of the physician is so great that, were we to be offered the alternative of giving up this authority or the privilege of prescribing drugs, we would not hesitate

a moment in choosing to retain the control of subordinates. No other element is so vital in the treatment of the insane.

Meanwhile, the gravity of the charges made against the hospital management, and the high standing of the journal in which they were published, alike demand a reply from the authorities of the institution.

MEDICO-CHIRURGICAL HOSPITAL.

Service of WILLIAM F. WAUGH, M.D.,
One of the Physicians to the Hospital.

A CASE OF THERMIC FEVER.

Reported by MANLEY F. GATES, M.D.

JAMES BENNETT, a laborer, aged 44 years, was brought to the hospital on August 7, at 5 P. M., suffering from a sunstroke.

When admitted, he was comatose, his face was flushed, the body relaxed and he was breathing stertorously. His pulse was 140 and the axillary temperature 108° F.

His clothing was at once removed, a bag of ice and water applied to his head, and the whole body rubbed with ice. Fifteen grains of antipyrine were given hypodermically.

The pupils were nearly normal, but soon began to dilate, so that at 6 P. M. they were fully dilated and irresponsive to light. By this time the temperature had fallen to 98.4° , and the ice was suspended.

At 7 P. M. the pulse was weak and the hands bluish; his whole condition denoting prostration. Ten minims of tincture of digitalis were then administered subcutaneously, as well as several syringe-fuls of whiskey. Frequent and profuse vomiting and purging ensued, with convulsive movements of the arms; which continued for over an hour.

Sometimes the movements of the hands resembled those made by pavers in ramming down cobble-stones. It was afterwards ascertained that at the time of the stroke he was performing similar movements.

At 8 P. M. the temperature had risen to 101.4° F. and the ice cap was re-

applied, and a cold sheet wrapped about the body. The patient then began for the first to show signs of consciousness and was able to tell his name.

At 10 P. M. he was sponged off, dried and put to bed; with $\frac{1}{6}$ grain of morphine hypodermically and one ounce of wine of coca by the mouth. At midnight the temperature had fallen to 100.6° F., and the man was quite restored to consciousness.

The temperature gradually subsided, reaching the normal point about 9 A. M., and did not again vary beyond the normal limits.

The day following the stroke he was fed upon clam-juice, in small quantities, given hot, every three hours. At noon he drank a cup of hot coffee, and during the afternoon ate a soft-boiled egg.

August 9. He has had full diet today; is quite rational; pupils normal; says he feels able to go to work.

He is an Englishman and has been in America but a few weeks, not long enough to become acclimated. He had been working very hard, hoping to earn money enough to bring his family out from England. He is strictly temperate; to which the successful issue of his case is partly to be attributed. Discharged at 6 P. M.

The special features about this case are: the rapid reduction of the temperature from the fearful height of 108° to 98.4° in one hour, and the ease with which the symptoms of depression were dissipated by the use of digitalis and whiskey subcutaneously. It will be seen that the flushed face and stertorous breathing, with high temperature, presented the indications for which Dr. Packard recommends bleeding; and yet, without resorting to this operation, relief was quickly afforded and a very speedy cure secured.

It was feared that some difficulty would be experienced in nourishing this patient, as the vomiting was severe; but the clam-juice was not only retained, but appeared to relieve the sickness.

Finally, the suggestion is made that the human brain is not so formed as to withstand the temperature of 108° for a very long period, and that the most energetic means for abstracting heat should be put in operation at once, before irreparable damage is done.

EXSTROPHY OF THE BLADDER.
REPORT OF A CASE.

BY W. H. WALLING.

RALPH M—, admitted to the Medico-Chirurgical Hospital, March 28, 1888, showed this deformity in a marked degree. The patient, a boy, born in the interior of the State, of very humble parents, was eight years of age at the time of his admission.

The case presented the following interesting features: The posterior wall of the partially formed bladder was developed sufficiently to form a strong wall or partition, which protruded like a hernia, through a somewhat circular opening in the abdominal wall, just above the pubic arch.

This mucous surface was about one and one-half inches in diameter, protruding from about one-half to three-quarters of an inch, and could be pushed back into the abdominal cavity.

The color was a pale rose, with brighter spots upon it.

The right ureter was normal, but the left appeared to be hypertrophied.

The anterior wall of the bladder was entirely wanting, and there was only a very rudimentary penis, with the partially formed urethra upon its dorsal surface. The pubic bones were not developed, being fibrinous, and there was no umbilicus. The testicles seemed to be normal, but the scrotum was not developed.

The boy was tall, thin, of light complexion, and quite bright for one in such a condition.

When admitted to the hospital there was much excoriation of the surrounding parts, caused by the constant dribbling of the urine. He was placed under strict hygienic treatment and various devices suggested to remedy the defect, which failed to meet the requirements. It was then deemed best to attempt the formation of a small, complete bladder, by turning a flap of skin down from the abdomen, and covering this with flaps brought from the inguinal regions. This difficult and tedious operation was performed by Prof. Goodman on June 7, 1888, at the hospital. It was complicated by the presence of an oblique inguinal hernia on the right side.

The patient being anaesthetized, an incision was carried from Poupart's ligament through the skin and superficial fascia one and one-quarter inches from the median line to about nine inches up the abdomen, on each side, and united at the top by a curved incision. The upper part was dissected down for four and one-half inches, being two and one-half inches in width. The edges of this flap were carefully stitched to the edges of the lower part, and the raw surface covered by flaps brought from the groin on either side; the skin of the abdomen brought over by stretching, so as to cover the raw surface left by the upper flap, leaving only the small spaces in the groins to heal by granulation. A drainage tube was inserted into the new formed bladder, a subsequent operation being necessary to form a urethra and modify the penis.

In dissecting and handling the flaps, great care was exercised, and a solution of fluo-silicate of sodium, 1 to 1000, was constantly used during the operation, which lasted ninety minutes.

The patient was placed upon a water bed—after being properly bandaged—in a sitting posture, with thighs well flexed. He rallied and the prospects were good for a recovery, but in about twenty-four hours suppression of the urine set in, and about thirty-six hours after this event he succumbed to uræmia.

The autopsy showed the intestines distended by fluid, but no peritonitis. The liver and spleen were normal. The right ureter was normal, the left markedly enlarged at the distal end, while both kidneys were considerably enlarged. The thoracic viscera were not examined, there being no indications of lesions or abnormality in that region.

LETTER FROM PARIS.

TUBERCULOSIS.

IT is admitted that the occasional cause of phthisis is the bacillus studied by Koch, and at once the practical physician thinks of trying to kill this micro-organism; but *a priori* that is an error. All those who have carefully studied tuberculosis admit that the bacillus is only the *occasional cause*,

and nothing more. Alone it cannot bring about phthisis; it must have an organism ready for its action. So that really what we should try for is not to kill the bacillus, but to modify the culture liquid—that is, to make the human body sterile to its action. This fact makes the laboratory work of great importance; for it is most likely that from such workshops of science we will get the best indication for our therapeutical efforts. It has been seen that the bacillus is difficult to cultivate *in vitro* in ordinary culture-liquids, and that it is exceedingly strong in its resistance to most of our physical and chemical methods, once it has reached adult life. The temperature of 60° to 70° centigrade, which will destroy most of the micro-organisms, has no effect on this one. And as to chemical action, Dr. Villemin, a son of the physician who first inoculated tuberculosis in animals, has just published a paper in which he studies the action of certain chemical substances on Koch's bacillus. He finds that there is a number of chemicals that do not prevent the culture, and in these solutions the colonies of bacilli develop very rapidly. Such are solutions of salicylic acid, benzoic acid, benzoate of soda, biborate of soda, chloral and phosphorus. A second lot are those solutions in which the culture is quite evident, but which do not permit the development so rapidly as the first-named. These are acetanilide, arsenite of soda, biniodide of mercury (of which so much had been hoped), caffeine, turpentine, eucalyptol (which had once been spoken of as a specific), iodide of potassium, terpine, terpinol, etc. Other substances seem to cause a delay in the culture of the bacillus: such are arsenious acid, boric acid, alcohol, benzene and creosote, iodoform and menthol. And, lastly, a few solutions prevent entirely the cultivation of Koch's bacillus; these are hydrofluosilicic acid, ammoniac, fluosilicate of iron, the same of potash, the polysulphate of potassium and the silicate of soda. All of these rather unusual preparations stopped the development of the bacillus. Professor Grancher has tried *in vitro* the vapors of hydrofluoric acid for four hours on a culture of the tuber-

cular bacillus, but without any effect, as they continued their action as before. We have the opening of the great international congress for the study of tuberculosis this week in Paris, and we will speak of it in our next letter.

ELECTRICITY IN DILATATION OF THE STOMACH.

One of our local electricians, Dr. Baraduc, proposes to treat dilatation of the stomach by electricity: that is, faradisation *intra-stomachal*. The operation is performed as follows: a rheophore is placed in the stomach-tube so that the wire shall not be in direct contact with the mucous membrane, but remains close to the small bend of the stomach, and to the vasculo-nervous plexus; while a piece of terra cotta ware is placed over a large portion of the stomach, which of course is much lower than normal. This method does not present any more difficulty than the usual one of washing out the stomach in such cases, and is intended to cause a constriction of the muscular fibres of the organ that have become relaxed, and to wake up, as it were, the atony of the solar plexus. It pulls up the stomach which has fallen from its diaphragmatic cavity, and replaces it in its natural place. The faradisation is kept up for ten minutes, and the current is allowed to increase slowly without causing any shock to the patient. The results seen are, first, an immediate disappearance of the pain and the vomiting; the return of liquid absorption, and an improvement in digestion of usual foods, with a rise of the stomach to its normal place.

UTERINE SENSATION.

The sensibility of the uterine mucous membrane was again up for discussion before the surgical society, owing to a case of M. Tillaux's, in which he tried the sensitiveness of the membrane and found that it was quite insensible to heat or cold, or to pricking with instruments, so that surgeons who hoped to make the diagnosis between a polypus and other tumors of the organ by sensibility will have to give up that sign. It has also another point of importance: that is, owing to the frequent cases of abortion produced by putting instruments into the uterus. It has been held

that the woman's evidence that she felt a painful sensation when something was introduced was of importance, but if it can be proved that the mucous membrane of the uterus is insensible, then this evidence is of no value, as abortion can be produced without the woman being made aware of it by painful sensations in the uterus. MM. Berger and Ribemont spoke of a series of studies they had made, which proved that the uterus was perfectly insensible to touch by instruments; but that the organ must not be shaken itself, nor must it be pressed upon. M. Terrier and other surgeons did not agree that the uterine mucous membrane was so insensible as M. Tillaux stated, as on passing sounds they found that there was always more or less painful sensation. Others found that the sensibility varied in different women. M. Bouilly seemed to have struck the real facts in stating that it depended on the state of health of the organ. It would seem in fact that when the uterus is in a good condition there is little if any sensation; but when there is endometritis its sensibility is increased. In any case the fact of sensibility being made use of to diagnose a fibroma from a polypus is not of much value as a sign.

NEW TREATMENT FOR GONORRHOEA.

Dr. Hamonic gives a new treatment for gonorrhœa that seems to be of great value. It is simply by using the vapor of iodine and passing it into the urethra. There is no pain, but resolution takes place in the inflamed tissues of the canal, while a dilatation is produced that keeps the urethra free. In any case it causes all discharges to disappear, no matter what the cause may have been. The apparatus used is composed of two sounds that are open at the ends and compressed one into the other. A small rubber balloon, which has a blowing apparatus on it, is charged with the iodine vapor (taken from metallic iodine which has been heated). This is blown into the canal by one sound and comes out by the other. An application is made daily and after about eight of them the patient will be found completely cured.

ICE TO CURE CROUP.

Dr. Bleyne, of Limoges, proposes

to cure croup by the constant application of ice to the throat. He introduces a small piece of ice into the mouth every ten minutes during the whole twenty-four hours (little children take it without even waking). The ice should not be swallowed until it has nearly melted. This must be kept up until the false membranes have gone, which will be from two to eight days, and when they seem to be going, then give the ice every half hour, and the next day only every two hours; watch closely the throat for some days to follow, and, at the slightest sign of false membranes, return to the use of ice every twenty minutes, until it disappears. Give plenty of food and wine from the first. If ice cannot be had, cold water may be used, but this must be applied at least every three minutes, by irrigation of the throat. If this is carefully kept up it will be seen that the disease germs will not invade the rest of the organism, and the child will be cured rapidly. The great success of this simple method induces us to mention it, not but what ice has often enough been used in certain forms of sore throat.

BURNS.

Burns are common enough to speak of, as we often have to treat them; and a writer in one of our medical journals gives the following formula:

Tannin,
Alcohol at 95°...ãã... 4 grammes
Ether sulph. rectified... 30 grammes

Paint the parts with this two or three times a day.

After the evaporation of the ether there remains a fine pellicle of tannin over the burn, that takes away the pain and inflammation, and the cure is much more rapid than with the various colloid preparations. The first painting of the part should always be preceded by a careful antiseptic washing, to take away any foreign substances that may have adhered to it, and all blisters must be punctured before applying the remedy. If there has been some time passed without any treatment, a slight coating of iodoform should be powdered over the part first.

ŒSOPHAGEAL CANCER.

What to do in the difficult cases of cancerous constriction of the œsophagus

has occupied the communications of two of our best surgeons lately; one of them, M. Nicaise, had, performed gastrotomy, in a patient as the man had a constriction and was in a state of complete inanition. After the operation (which permitted alimentation by the stomach) a considerable amelioration was noticed. The patient gained in a week more than eight pounds, and lived for five months afterwards, when he died from the cancerous cachexia; but his gastric fistula did not present the slightest signs of irritation, and the food was retained when introduced. This may have been owing to the fact that the opening was made near to the pyloric orifice of the stomach. Dr. Nicaise concludes that this operation is to be preferred to the use of œsophageal sounds as a palliative in such cases. The passage of the sound only irritates the cancerous growth, and it is often difficult, painful and dangerous. Gastrotomy of itself is not a dangerous operation, and it allows of sufficient alimentation and gives the patient as much comfort as possible, and in some cases it allows after a time of their swallowing something by the usual route.

Dr. Kermission, on the other hand, had two cases of cancer of the œsophagus, and he used the method called "*sonde à demeure*"—that is, the sound is left in place after being introduced. The same sound can be left a long time, and is only taken out to clean it from time to time. The instrument used by M. Kermission was composed of two parts: a conducting *bougie* of whalebone and a rubber sound. The conducting bougie was invented by M. Verneuil, and when it passes the constriction the rubber sound is slipped over it. When the sound is passed, the anterior end is slipped into the nasal fossa, an ordinary urethral sound is passed into the nose, the connection is made between the sounds and it is fixed here with a diaper pin, or else a bandage is passed around the head to hold it. This allows the respiration to be carried on with the other nostril and the larynx as usual, while the sound is used for alimentation. This system certainly has the advantage of being applicable to not only cancers, but other constrictions of the

tube (cicatrices and burns, etc.), and, after long dilatation, cure may be effected in the last named cases; but it seems to us that in cases of real cancer the first named operation is the best, and gives the most relief to the patient.

PEPTONIZATION.

An interesting note from M. Marcano, to the Academy of Sciences, shows how the peptonic fermentation of meat is accomplished. It results from his experiments that the faculty of peptonizing the albuminoids resides in the living vegetable cell, just as it acts on sugar and forms alcohol. This was seen by adding to hashed meat not only vegetable juice, but also the plant itself, when the solution of the fibrine was accomplished in from five to six hours, while if it is heated to 70° centigrade, the magma becomes liquid and gives a highly concentrated solution of peptones. From which we see the importance of a diet consisting of living vegetable fibre as well as meat fibrine.

THOMAS LINN, M.D.

ADDRESS.

DELIVERED AT THE OPENING OF THE SECTION OF OBSTETRIC MEDICINE, AT THE ANNUAL MEETING, BRITISH MEDICAL ASSOCIATION, GLASGOW, AUGUST 7, 1888.

BY THOMAS MORE MADDEN, M.D., F.R.C.S. Ed.,

President of the Section; Obstetric Physician, Mater Misericordiae Hospital, Dublin; ex-President, Obstetric Section, Royal Academy of Medicine; Physician, St. Joseph's Hospital for Sick Children; formerly Examiner in Obstetrics and Gynæcology, Queen's University; and Vice-President, British Gynæcological Society, London.

GENTLEMEN—I gratefully appreciate the honor of my election to the Presidency of this important section of the British Medical Association; which I regard as a compliment to the Dublin School of Midwifery, with which I have been long connected, rather to an individual otherwise so unqualified for the distinction as myself. I shall therefore trust to your continued indulgence for condonance of whatever shortcomings may be observable in my attempt to discharge the duties now entrusted to me.

The present meeting of the Association should, I think, be especially val-

ued by the members of this Section; for it is to Scotland, and to the genius of her sons, that the twin sciences of obstetrics and gynecology—which we are here met to cultivate—owe their earliest development in Great Britain; and to a large extent their recent progress is traceable to the same source.

Long before there was any systematic teaching of midwifery either in Dublin or in London, and fully twenty years before the foundation in the former city of the great maternity hospital—on the staff of which I served my apprenticeship to the obstetric art—a Professorship of Midwifery was, in 1725, established in the University of Edinburgh; and I have had in my possession the ancient manuscript notes of the obstetric course delivered there in 1756 by Professor Young, as well as of the lectures of Dr. Hamilton, by whom he was succeeded. From that time the obstetric teaching of the Scottish schools has come down in an unbroken continuity of excellence to our own day, and its character has been amply maintained by the reputation of their alumni. Thus it was to William Smellie, a native of Lanarkshire, that our professional forefathers owed a "System of Midwifery" as far in advance of any that had preceded it as the obstetric science of these last twenty years of the nineteenth century has progressed beyond that taught in 1752 by Smellie. To the same writer is more especially due the credit of the first real improvement on Chamberlen's original forceps, as well as directions for using that instrument, as he said, "on rational and mechanical principles," which even yet might be studied with some advantage by modern obstetricians.

It was in this country also that the mind of William Hunter received its early training in that obstetric art which he afterwards so successfully cultivated and practised in London, and of which he there became the most distinguished of all its older British teachers. Nor even in this brief retrospect can it be forgotten that, in the city wherein we are now assembled, modern intraperitoneal gynecological surgery was first anticipated in 1701 by Dr. Houston, in the curative treatment of an ovarian tumor by abdomi-

nal section. Whilst, more than a century later, it was to another Caledonian surgeon—Mr. Lizzars, of Edinburgh, whose early ovariectomy cases were published in 1825—that the revival, although in a very different and improved form, of Houston's first laparotomy operation is mainly due. I shall not attempt to follow further the long history of the obligations of our art to the older Scottish schools, or pause to offer my humble tribute of respect to the memory of one of their ablest teachers—the late Sir James Simpson, whose name will be recalled as long as suffering humanity seeks relief in anæsthesia, and as long as obstetrics and gynecology are cultivated. Nor need I here refer to the services to our branch of medicine of Dr. Matthews Duncan, who filled the position I now occupy at the last meeting at Edinburgh of this Association, or allude to the well recognized gynecological work of Dr. Keith, and of many other no less distinguished living Scottish authorities.

Whilst willingly acknowledging how much we owe to Scotland, I cannot omit a briefer reference to the similar labors of the Dublin School, although the credit of not a few of the obstetric advances that originated there in bygone years has more recently been elsewhere appropriated. Thus, for instance, the employment of version as a substitute for craniotomy, as advocated by some modern German and English writers, was first suggested in 1752 by Sir Fielding Ould, the second Master of the Dublin Hospital, and was revived a century later in the same place by the late Dr. McClintock, whose genius, erudition, and obstetric skill entitle him to remembrance even in our most oblivious of professions. In like manner, the management of the third stage of labor by the method claimed as his own in the late Dr. Spiegelberg's recently translated "Text-Book of Midwifery," is practically almost identical with that followed in the Rotunda from time immemorial, as described several years ago in my edition of "The Dublin Practice of Midwifery." The resuscitation, moreover, of the use of the forceps, the prophylaxis of *post-partum* hemorrhage, and many other

improvements in the management of child-birth and the puerperal state—the introduction of which is claimed elsewhere—have, I may repeat, also emanated from the same practical school of midwifery.

The foregoing reference to the historic claims of the ancient Scotch and Irish centres of obstetric science might be readily expanded. Time, however, forbids my further trespassing either in this way or by any allusion to the better known services of the early fathers of English midwifery; and, as Raynald, Willoughby, Harvey, Cook, Chamberlen, Chapman, Giffard, Denman, and the host of other pioneers of obstetric knowledge, many of whose lives and labors are so well chronicled in Dr. Aveling's erudite "Biographical Sketches of British Obstetricians," I shall, therefore, devote the remaining portion of this address to the more practical consideration of the results of some of the recent developments of obstetric and gynecological science.

The progressive improvement of midwifery practice has been strikingly evinced during the past few years. Thus the pathology and preventive treatment of intra-uterine death and abortion have been freed from much of their former obscurity and difficulty by the recent writings of Dr. Priestly. The prevalence of puerperal septicæmia, by epidemic outbursts of which, in my early days, I have repeatedly seen the crowded wards of a great maternity hospital decimated, has been largely diminished by the hygienic and antiseptic measures now adopted for its prevention. Whilst if septicæmia should still occur, we are now armed with more scientific means for the curative treatment of this disease, which some years ago was generally classed amongst the incurable *opprobria* of our art. In like manner by the adoption of improved methods for the prevention and treatment of *post mortem* hæmorrhage, that once frequent source of obstetric mortality has been almost completely removed. At the same time the throes and pains of labor have been rendered more endurable by the employment of comparatively safe anæsthetics, such as the mixture of two parts of ether and eau de cologne with one

of chloroform, which, for nearly twenty years, I have found a generally efficient and agreeable anæsthetic in such cases. Moreover, by judicious instrumental assistance, we may now, in many instances, safely abridge the duration of that formerly often long-protracted period of parturient suffering, which, when a student, I have too often seen allowed to continue unrelieved for forty and fifty, and even for eighty, hours and upwards. Lastly, the former appalling frequency of child-destroying operations has been reduced in an exact proportion to the increasing employment of the forceps. Nor have the limits of the utility of this instrument, as a substitute for the cephalotribe, craniotomy forceps, cranioclast, *et hoc genus omne*, been even yet fully reached.

The Uses of the Forceps and its Improvement.—The main reason why any embryotomic instruments are still included in the ordinary obstetric outfit, appears to me the fact that most midwifery practitioners do not recognise sufficiently the compressive power of the long forceps, and, moreover, rely exclusively on some one form of forceps, whether the head be above or within the pelvic cavity, and without reference to the kind of mechanical power—tractile, lever or compressive—that may be specially required in each case. Desirable as it may be to carry as few implements as possible in the obstetric bag, it is, nevertheless, impossible to combine in any one instrument properties so distinct as those referred to. In operative midwifery there should, surely, be some definite proportion between the power employed and the resistance to be overcome. Hence it seems about as needless to resort to an instrument of such compressive and lever power as the double-curved long forceps to assist delivery in an ordinary case of delay in the second stage, as it would be to employ a steam-hammer to crack a walnut.

I have endeavored to carry out these views in the two instruments now exhibited, which have been considerably modified and, as I think, improved in the course of experience since I first demonstrated the use of their original models. The first is a short, straight traction forceps, the blades of which

are only six inches in length and are so curved as to fit the foetal head very exactly, and so widely penetrated as to allow the scalp to protrude when applied, and thus protect the maternal passage during extraction. This instrument, as may be seen, is very portable, and, locking loosely, is easily applied; and being a really efficient tractor, as I have proved by experience of its use in upwards of three hundred cases, may, therefore, be employed in nine-tenths of the cases in which any instrumental assistance is required—namely, those in which delay arises from inertia in the second stage of labor.

The second instrument shown is intended only for cases of difficulty from disproportion or pelvic flattening. The blades are, therefore, of considerable length and strength, and are approximated by a powerful screw by which the amount of compressive force exercised may be exactly regulated. The affixed traction rods are closed or separated by a simple mechanical arrangement. This instrument, as will be seen, is not only a tractor and lever, but is a compressor of great power, with which the foetal head may be gradually moulded out and compressed within the limits of viability, so as to admit of delivery through pelvis from which a living child could hardly be otherwise extracted. I need hardly add that such an instrument requires very great caution in its use, and should be employed only in the exceptional cases for which it is designed, and as a substitute for embryotomic implements.

Recent Progress of Gynæcology.—The development of this branch of medicine, since our Association last met in Scotland, has been still more remarkable than that effected in the practice of midwifery during this period. Thus, for example, only a few years ago many of the most frequent forms of endo-uterine and peri-uterine disease were beyond the diagnostic and remedial reach of gynæcologists, then unprovided with those means of rapidly and thoroughly dilating the cervical canal, or with the many other methods of direct investigation, by the aid of which any well-educated practitioner may now recognize and treat

endo-uterine, ovarian, tubal and other intra-peritoneal and pelvic complaints that baffled detection or treatment. Nor in those pre-antiseptic days could have been anticipated the wonderfully successful results since realized from laparotomy operations, and more especially ovariectomy, as well as from some still more recent developments of intra-peritoneal surgery in tubal and other diseases, including even peritonitis and cancer of the uterus, the latter a subject which has been recently elucidated in Dr. J. Williams' Harveian Lectures. In the last-named cases, however, it is a debatable question whether we should persevere further with the intra-peritoneal procedure for the removal of the uterus introduced by Freund, in view of the better results obtained from the vaginal method advocated by Dr. Martin, of Berlin; and also whether in the latter case the operation should be limited, as recommended by Dr. Williams and Dr. Braithwaite, to the removal of the cancerous portion, and not be extended to the extirpation of the entire uterus.

Only within the time referred to has the general correctness of Dr. Graily-Hewitt's views with regard to the importance and treatment of uterine displacements and flexions become commonly accepted. Neither were the symptoms and appropriate treatment of ovarian displacements understood until a more recent period, when attention was directed to them by Dr. Barnes' able paper on this subject in the *American Journal of Obstetrics*, and in a minor degree, perhaps, also by a memoir of mine on the same topic in the transactions of the Irish Academy of Medicine. Nor is it so long since the bearing of cervical lacerations on pelvic pathology, as first demonstrated by Dr. Emmet, of New York, first became recognized in this country. Finally, the diagnosis, importance, and curability of diseases of the uterine appendages, such as hydro- and pyosalpinx, together with several other of the causes of female suffering and death, were, in like manner, practically ignored by gynæcologists until within a very recent period.

Influences of Prejudice and Fashion in Gynæcological Progress.—In the

history of many of the successful developments of gynæcology just referred to, we may observe proofs not only of the progress of our art, but also of the two causes which have temporarily retarded its advancement. The first is the opposition generally offered in matters medical, as in most others, to all innovations, and the consequent reaction by which the pendulum of professional opinion is swung from one extreme to the other, exaggerated over-estimation, thus generally succeeding to earlier adverse prejudices. The second is the potent influence of fashion on medical opinion and practice; for, strange as it may be why this should be the case, it is, nevertheless, true that—

“In physic, as in fashion, we find
The newest is ever the rage of mankind.”

This is strikingly illustrated in gynæcological practice, in which it now seems almost as much the fashion to ascribe various obscure female complaints to ovarian and tubal disorders, as, a few years ago, it was to attribute similar ailments to uterine flexions and displacements; or as, ten years earlier, it was the mode to credit them to chronic inflammation, or what was then regarded as ulceration of the neck of the womb; or yet, a century previously, to set them down, in the phraseology of our professional ancestors, to “the spleen” or “the vapors.”

Gynæcological Specialism and Woman's place therein.—In this connection I may venture to observe that I cannot agree with those who are opposed to the admission of women into the practice of our department of medico-surgical science, for which their sex should apparently render them so especially adapted. I can see no valid reason why any well-qualified practitioner, male or female, should not be welcomed amongst us. Nor if there are women who prefer the medical attendance of their own sex, does it seem fair that in this age of free trade they should not be afforded every opportunity of exercising their discretion in a matter so personal to themselves. For my own part, I greatly doubt that, in these countries at least, “the Lady Doctors” (as they are termed) will ever replace the ruder sex in the general estimation of their sick

sisters. But, if not here, elsewhere there is unquestionably an ample field for female practitioners, and, more especially, in India and other Oriental countries, where millions of suffering women and children are fanatically excluded from the possibility of any other skilled professional assistance; and I therefore think that such practitioners are entitled to admission into our ranks in the British Medical Association.

Laparotomy in Relation to Gynæcology.—Foremost amongst the proofs of modern gynæcological progress, the most signal is that afforded by the results of abdominal surgery in the treatment of ovarian tumors, as demonstrated in countless cases at home and abroad, and in this country more especially in the practice of Sir Spencer Wells, Dr. Keith, Mr. Lawson Tait, Dr. Bantock, Dr. Savage, Mr. Thornton and other specialists in this department of operative surgery, which, not very many years since, was so loudly and unfairly decried. Whether this should encourage the present frequency of resort to laparotomy in the various other intra-peritoneal morbid conditions in which it is now advocated, or not, is, however, another question, and one which, I think, may be still advantageously reconsidered.

Treatment of Fallopian Tube Diseases.—With respect to the tubal diseases, to the operative treatment of which so much attention is now devoted, and which I have elsewhere fully discussed, I shall only here again observe that, whilst recognizing the fact that in some instances of pyo-salpinx and hydro-salpinx the removal of the diseased uterine appendages affords the only available means of treatment, and fully appreciating the surgical skill by which operations for this purpose have been brought to their present perfection, I have not, in my own experience, found laparotomy operations as generally necessary in such cases as they are apparently now deemed by others. On the contrary, I am confirmed, by increasing observation, in the belief that in some instances these tubal diseases, more especially in cases of hydro-salpinx, may terminate favorably without any surgical treatment, and, moreover, that in other cases such

collections, whether purulent or serous, may be evacuated by cautious aspiration through the vaginal roof. Very recently I had an opportunity of again proving the advantages of this method of treatment in the case of a lady, who, after many months of suffering, was sent to me from a distant country to have the affected uterine appendages removed; but whom I succeeded in relieving of her trouble, with the assistance of my friend, Dr. Duke, by aspirating the Fallopian tube, and thus removing about ten drachms of serous fluid from the distended duct. I would, therefore, still urge the expediency of a fair trial of other less serious methods of treatment before resorting to the extirpation of the uterine appendages in these cases generally.

Operative Treatment of Uterine Tumors.—It would be impossible, within the limits of this address, to enter at length into the consideration of a question so large and so controversial as the general necessity for surgical interposition in the treatment of uterine fibromata. This, I am glad to see, will be brought before you during this meeting by those eminently qualified to speak on the subject; and I trust that in the ensuing discussion new light may be thrown on the comparative merits of the various intra-peritoneal and vaginal surgical procedures advocated in such cases, as well as on the value of electrolytical treatment. Nor, in this connection, should the possibility of arresting the growth of these tumors in some instances by appropriate medical treatment, as well as the greater probability of thus effectively checking hemorrhage so occasioned, and more especially by the free administration of ergot and iodide of potassium, to which I have elsewhere called attention, be entirely lost sight of.

With regard to the former or surgical method, I may, however, venture to repeat that, in the majority of cases of interstitial and sub-peritoneal uterine tumors, no active treatment whatever appears to me essential; inasmuch as such growths seldom, if ever, destroy life, and in many cases become arrested in their development and quiescent in their symptoms at the menopause, or may even possibly disappear altogether

in the course of time. The latter event is, however, far too exceptional to have much influence in determining the expediency of surgical treatment, and more especially that by oophorectomy, which is unquestionably called for in the case of fast-growing fibroids, giving rise to otherwise uncontrollable urgent hemorrhagic or pressure troubles, particularly when occurring in young patients.

With regard to hysterectomy, although exceptional cases may occur in which this procedure is necessitated, the average mortality that has followed its performance is such as to forbid its general employment, as an operation of election, in a disease the average mortality of which, when left to nature, is so comparatively insignificant; whilst as to myotomy, in view of its too common results, I can only repeat that it would appear to me a method by which a patient may be effectually removed from a tumor, rather than as an operation by which a tumor can be safely removed from a patient.

Treatment of Uterine Fibroids by Electricity.—Although I have so nearly exhausted the allotted limits of this address, I cannot omit a few words in reference to the latest and most promising of the methods available in the treatment of uterine fibromata—namely, that by electricity. Within the past year and a half, I have had occasion to try this method, in some ten instances, in my hospital and private practice; and so far as the arrest of hemorrhage is concerned, the result was most satisfactory, the bleeding being thus arrested in six of these cases. But with regard to the cure of the disease from this treatment, the possibility of which had been demonstrated in the experience of Dr. Apostoli and others, who had employed it on a much larger scale, I can only say that whilst I have not as yet seen the complete subsidence of the tumour affected in any of the cases so treated by myself, in three of them its apparent bulk became distinctly diminished even after six weeks' or two months' treatment of this kind. It should, perhaps, be added that in all these instances I used Dr. Apostoli's original plastic clay abdominal electrode, the current used being, of course,

monopolar and acting directly on the growth by the intra-uterine pole, and was obtained from a powerful Leclanche battery of an estimated maximum current strength of 250 milliamperes. In the first of my cases I employed the electrolytic negative current, but after a little experience I abandoned this, and in the subsequent trials used only the positive current, which, although non-energetic as a galvanic-caustic, is far less liable to give rise to trouble, and from its decided hæmostatic action is more suitable to these cases of large hemorrhage producing tumors, in which alone this or any other active treatment seemed to me generally necessary.

If, however, the results obtained by Dr. Cutter, and, still more conspicuously, those recorded by Dr. Apostoli, from the employment of electricity—namely, permanent benefit in ninety-five per cent. of the cases of fibromata thus treated by him—should be confirmed, as I hope may possibly be the case, by the experience of those who are here about to discuss this disease, then we might well congratulate ourselves on having at last arrived within sight of the long sought-for safe and effectual curative treatment of uterine tumors.

The foregoing *résumé* of some of the recent developments of obstetric and gynæcological science, imperfect as it is, affords a sufficient vindication of our branch of medicine from the aspersions which have been poured upon its followers. These advances and their results are surely more than enough to show that those by whom so much has been accomplished are engaged in no narrow specialism; but, on the contrary, should rank high in that noble and ever progressive profession of medicine whose great objects are the prolongation of life and the relief of every form of human suffering.

In conclusion, gentlemen, it only remains for me again to thank you for the honor you have here conferred upon me, and for the patience with which you have listened to this address.

FEMALE APOTHECARIES.—Russia has granted women permission to devote themselves to pharmacy, provided male and female students are not trained together.

REVIEWS AND BOOK NOTICES.

AN ILLUSTRATED ENCYCLOPÆDIC MEDICAL DICTIONARY. Being a dictionary of the technical terms used by writers on medicine and the collateral sciences, in the Latin, English, French and German languages. By FRANK P. FOSTER, M.D., with 11 collaborators. Vol. I. A to C. pp. xii, 752. 4to. New York: D. Appleton & Co. 1888.

This is certainly the day of magnificent books. "A comprehensive medical dictionary giving adequate attention to English, French and German terms in the same vocabulary" is something which becomes at once a necessity for every physician who reads or writes.

In the limited examination we have been enabled to make of the volume before us, we have found the definitions technically correct, the whole work copious enough to satisfy the most exacting, and we have had reason to admire the industry of the author, who has found time to accomplish a task of such enormous proportions, while engaged in editing a great medical journal.

The typography and paper are fully up to the Appleton standard.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM. Being a study of this portion of the human body from a standpoint of its general interest and practical utility in diagnosis; designed for use as a text-book and a work of reference. By AMBROSE L. RANNEY. Second edition, re-written, enlarged and profusely illustrated. pp. xxxv, 791. 8vo. New York: D. Appleton & Co. 1888.

The design of this book is sufficiently indicated by the title; and the manner in which the design is carried out, by the name of the author. The large number of illustrations is especially appropriate in a work upon the nervous system, which few could read with the same benefit without such aids.

THE HYGIENE OF THE SKIN; OR, THE ART OF PREVENTING SKIN DISEASES. By A. RAVOGLI, M.D. Cincinnati: Central Medical Publishing Co. 1888.

The author has written a book which, like some others, may be the subject of

adverse criticism as to its design, style, etc. Still the fact remains that he has here collected a goodly amount of information, much of which is of value, and yet is not to be found in the ordinary text-books on diseases of the skin. In the first chapters he gives the anatomy and physiology of the skin, following with the etiology of skin affections, speaking of morbid impressions, diatheses, viruses, age, sex, complexion, poisons, diet, air, water, cosmetics, clothing, etc.

We are sorry to see no mention of the influence of plethora upon the development of some skin affections, as this is rather a neglected subject, which would have been appropriate here.

Perhaps the most useful part of this work is the chapter upon cosmetics, in which will be found answers to many of the questions with which our lady patients sometimes worry us.

A LABORATORY MANUAL OF CHEMISTRY, MEDICAL AND PHARMACEUTICAL, containing experiments and practical lessons in inorganic synthetical work, formulas for over 300 preparations, with explanatory notes, examples in quantitative determinations and the valuation of drugs, and short, systematic courses in qualitative analysis and in the examination of urine. By OSCAR OLDBERG, Ph. D., and JOHN H. LONG, Sc. D. With original illustrations; pp. 435. Chicago: W. T. Keener.

The author has given us a very good manual of chemistry, including the more recent advances in that science. To those who desire a guide in the chemical laboratory, which is clear, succinct and yet not so condensed as to be unintelligible, the present work is to be recommended.

LETTERS TO THE EDITOR.

JABORANDI IN ALBUMINURIA GRAVIDORUM.

Editor *MEDICAL TIMES*:

In the case I shall briefly report below, and which is respectfully submitted for your review, I desire to call special attention to a few facts, and also to make these facts the basis for

an inquiry which I feel sure your great experience and close observation will fit you to answer. The occasion for this request of you, or rather the reason for my reporting the facts at this time, is this: At a recent meeting of a noted medical society, I reported the case narrated below, and asked for reports of experience with the drug in similar cases. None of the members had had personal experience with it; but in the discussion one venerable member denounced the drug as dangerous and contra-indicated in cases similar to mine—all because of his own one painful experience in injecting an unknown strength solution of pilocarpine into the scalp of a bald-headed patient. While I have no desire to do aught but condemn the careless and altogether reckless use of remedies of unknown power, I at the same time recognize as short-sighted the condemnation of therapeutic agents whose values are underrated because, forsooth, their power has been discovered by a species of criminal negligence.

My reason for appealing to you is, that, through the influence of your widely spread journal, the profession may learn whether the results that so happily crowned my experiment were of accidental occurrence, or whether we have in jaborandi a therapeutic agent that promises great results in cases of pregnancy, where premature labor or puerperal eclampsia are too often the two horns of the dilemma.

Mrs. D., primipara, 21 years old, free from taint of disease, and the embodiment of health, when nearly five months along in pregnancy, began to bloat about the face, hands and feet. Inside of a month the anasarca became general—so much so that she could with difficulty get about. From a condition of perfect health she became subject to severe headaches at times, with some pain in the head nearly all the time. She was drowsy and sleepy much of the time. On examination the urine was found to contain from 40 to 75 per cent. of albumen by bulk. A sample of urine sent to a microscopist contained hyaline and other casts; and from the many consultations I made with medical compatriots I obtained little encouragement, either as

to the outcome of the pregnancy or the safety of the patient. In the next month I tried all the remedies that I had reason to think would have the effect of reducing the anasarca and the albumen. I finally settled down to the use of the compound jalap powder (changed to one to four) once to three times a week, with a teaspoonful three times a day of the fluid extract of jaborandi. Under this the anasarca was reduced and the albumen in the urine reduced from 20 to 50 per cent. by bulk. The headache almost entirely disappeared, and at the full term the patient was, after a labor of average duration, delivered of a perfectly healthy boy, who, as I write, approaches me with the not unfamiliar speech of "Papa, have you got a nickel?"

In three days after confinement all anasarca and albuminuria had disappeared, and the patient has since enjoyed the best of health. At no time during the treatment was there any evidence of ptialism, bronchorrhœa or excessive perspiration. I used P. D. & Co.'s fluid extract.

Iowa.

J. A. D.

[While jaborandi is a drug which should be given with care, there is nothing in the above case to contraindicate its employment; and it is to be doubted if any other medicament would have rendered the same service. Whatever is the morbid principle to whose presence in the blood the phenomena of uremia are due, no other eliminant has in our hands proved of equal value.

—Ed. P. M. T.]

MISCELLANY.

A DEMORALIZED HOSPITAL.—Disclosures of a sensational character concerning the management of the State Hospital for the Insane, at Norristown, were made at the recent monthly meeting of the Trustees. The management of the institution is practically in the hands of the Executive Committee, and the report presented by that body to the Board showed not only the grossest mismanagement and neglect on the part of the employees, but downright

cruelty, which in two cases resulted in bodily injury to the patients.

Mary Ritchie, who has passed her 80th year, had her arm fractured because she refused to take a bath. She was seized by two of the attendants, and in the struggle her arm was broken. Mary Green, one of the attendants, was discharged by the committee. Jacob Miller also had an arm broken by the attendants, and three of the men employed in the male department were discharged. These unfortunates had suffered most at the hands of the attendants, but it was stated that other patients had been treated in a shameful manner.

The committee also reported that the management of the farm and poultry-yard was in a chaotic state, and little or no attention had been paid to the stock. There was a general want of care and attention on the part of the employes that should not be tolerated.

In its report the committee says that the hogs had been allowed to run at large and have destroyed twenty-eight acres of potatoes; the cows suffer for want of attention; the cornfield was full of weeds, and the agricultural implements neglected. In the poultry-yard two patients and three persons on salary are employed at a cost of \$47.50 per month. The poultry-yard management will be investigated, and the neglect on the part of the former will result in summary action.

The committee recommended a plan for improving the water supply at a cost of several hundred dollars, the present supply not being adequate.

Steward West presented a bill for \$117 for engravings which he had purchased to hang in the dining-hall. Several members of the Board wanted to know where the steward got his authority to make the purchases, as it had not emanated from the Board. As the pictures looked well the Board decided to pay the bill, but notified the steward not to make any more purchases without first obtaining permission from the Board.

The physician's report shows there are 842 males and 826 female patients now in the institution.—*Phila. Record.*

PHILADELPHIA MEDICAL TIMES.

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DEAFNESS AS THE RESULT OF THE POISON OF SYPHILIS.

BY LAURENCE TURNBULL, M.D., PH.G.,
Aural Surgeon to Jefferson Medical College Hospital,
Philadelphia.

THE number of cases of syphilitic disease of the ear are much less numerous in the United States than in Great Britain or on the Continent. This fact I have proven by repeated visits and examinations of hospitals and clinics, both public and private, of Europe. I also quote the careful observations of one of their distinguished aural surgeons, Dr. Dalby, who states, in the *Lancet*: "Next to scarlet fever, inherited syphilis may be reckoned as the most fruitful cause of deaf mutism."

In the United States, in a practice extending over thirty-three years, in a city of eight hundred and fifteen thousand inhabitants, the proportion of cases of syphilitic disease of the ear is about sixteen in one thousand, while in my public clinic at Howard and then at Jefferson College Hospitals the number shows a decrease as compared with my private record. This fact is in part owing to the greater amount of care and time given to the histories of the cases in my private record, which includes investigation into heredity, etc. The same facts are proven by reference to the statistics of the insti-

tutions for the instruction of deaf mutes in the United States. By examining their reports it will be found that the largest number of non-congenital deaf mute cases are placed under scarlet fever, spotted fever, a low form of epidemic typhus; then follows in order of frequency cerebro-spinal meningitis, etc. This, however, may arise from the fact that but very few of the superintendents are medical men, and therefore are not competent to judge of the histories accompanying the pupils, which they often receive, not from the family physician, but from parents, guardians or friends, who should have referred them to the consulting or attending physician.

History.—As early as June, 1853, Wilde, of Dublin, published the most distinct account of syphilitic affections of the ear, in his work on Diseases of the Ear; but he unfortunately dwelt too much upon the local manifestations occurring in the membranes of the tympanal cavity, while he neglected the nervous element. The same syphilitic poison which produces alternately an affection of the eye and ear was termed by Sir William "an inflammatory affection." In the work of Joseph Toynbee but little information is given concerning syphilitic affections of the ear, but this was remedied in the edition issued in

1868, with a supplement, by the late James Hinton, Aural Surgeon to Guy's Hospital, who must have seen a large number of cases, because he states that more than one-twentieth of the aural out-door patients present the now familiar aspect of hereditary syphilis, and have, in every case he has met with, suffered from impaired vision, before the deafness has arisen. He further observes: "I know no other affection, except fever, which in a person under twenty brings on deafness so rapid and so nearly complete." In the course of a few weeks a girl, previously hearing well, will, without pain or known cause, become unable to distinguish words. Perhaps her eyes, which have been long inflamed, have about the same time become better. On examination, it is found that a tuning fork placed on the head is heard for a very short time, or not at all; the meatus is free from wax, the membrana tympani looks somewhat white and rough—it may be flat or concave, but it generally has a dried-up look, as if its fluids were deficient; the Eustachian tube may or may not be pervious. From the symptoms, however, it is evident that, as in the case of the eye, both the conducting and the nervous apparatus are liable to be involved in this disease. The peculiarly harsh sound produced by passing air into the tympanum suggests the presence there of rough, rigid lymph, and the total deafness proves that the labyrinth has suffered."

Diagnosis.—Often at a glance and with a brief history of the patient, the syphilitic affections of the skin of the external ear, soft palate, tonsils, or pharynx are recognized, when associated with a dull pain, in and about the ear, and pronounced tinnitus. If we find recent ulcers of an excavating nature, with everted edges, in the mucous membrane, or extending to the osseous walls, also necrosed bone from the septum, spongy bones, or floor of septum with a peculiar and characteristic odor; this will show a recent attack of the disease.

Should the individual be profoundly deaf, having dry white patches on the membrana tympani, associated with radiating cicatrices in the pharynx, with swollen, contracted, or even closed Eus-

tachian tubes, loss of perception of sound through the bones of the head, we may be almost sure that we have labyrinthine syphilis to treat. In young children, or half-grown persons, of both sexes, having rapidly developed deafness, without objective symptoms of middle ear disease, we should also suspect labyrinthine syphilis, even when the primary infection was denied by the parents or guardians of such young persons. The diagnosis is confirmed if we find the lymphatic glands over the mastoid process swollen.

Pathology.—The pathology of the various forms of changes in the ear produced by syphilis is a matter of great importance, and should be dwelt upon. It has been observed that hyperemia exists in the vestibule at the entrance of the cochlea and horizontal semicircular canal, in a case of tympanic catarrh and probable periostitis, in a syphilitic person. In a syphilitic soldier who died of exanthematic typhus, there was found considerable hyperemia of the tympanic mucous membrane and membranous labyrinth, which appeared to be a good deal thickened. The labyrinthine liquid was sanguinolent and abundant.

Myringitis, ankylosis of the ossicles, with adhesive inflammation in the labyrinth, with depositions of chalky concretions on the membranous semicircular canals and sacs.

In a reported case of secondary syphilis, in which deafness, annoying tinnitus aurium, and osteocopic pains in the skull were complained of, hearing was rapidly destroyed. The autopsy showed the external and middle ear intact, sclerosis of the petrous portion of the vestibule, and small-celled infiltration of the membranous labyrinth, and ankylosis of the stapes to the fenestra ovalis. The trunk of the acoustic nerve was found unchanged.

In a new-born child with congenital syphilis both perforations were below the manubrium, so that they could not be referred to an arrest of development.

In dissecting the petrous bones in one syphilitic case, there was found a congested state of the tympanic mucous membrane on the right side, and some old adhesions at the upper part of each tympanum, the membrana tympani

very concave, the Eustachian tubes containing mucus: each vestibule was much congested.)

The ulcers found with constitutional syphilis are annular and covered with a dirty grayish-white exudation, and from their edges being greatly swollen they cause contraction of the meatus, and when they exist the lymph glands in the vicinity of the ear are much swollen.

The serous catarrh (otitis media serosa) is found with syphilis, and is an inflammatory dropsy of the tympanum, of a yellowish-red color. It is the least common, and should not be mistaken for the very simple transudation (hydrops ex vacuo) which results from closure of the Eustachian tube.

Certain changes in the cerebral arteries have been discovered by Huebner and Barlow, and these same changes no doubt occur in the arteries which supply the ear, in syphilitic disease of this organ. These changes are opacity and marked thickening of the vessel, with diminution in its calibre. The thickening is chiefly in the inner coat, while the outer coat is abnormally vascular and filtrated. Charcot and Gombault describe a syphilitic lesion of the brain substance, which consists in the formation of disseminated small nodules, either on the surface or at the depth of nerve centres.

The ulcers of the Eustachian tubes, in syphilis, which extend from the pharyngeal mucous membrane, are much deeper, reaching the cartilage itself, and even penetrating its substance. Syphilitic excrescences, like the pointed condylomata, are sometimes seen at the osteum pharyngeum.

Syphilitic mucous patches on the tonsils, when examined under the microscope, show the latter to be seated upon the mucous membrane which covers the gland. The epithelial layer was thickened; some of the superficial epitheliæ were swollen and vascular; the papillæ of the mucous corium beneath were hypertrophied. It is to the hypertrophy that the prominence of the patches is due. The more profound syphilitic lesions of the mucous membrane begin by an induration of the corium and of the submucous tissue by deep nodules or gummata, which

very soon ulcerate. By a careful examination it will be found that the syphilitic disease affects the most vital portion of the internal ear (the labyrinth), which becomes thickened in its membranous covering, and the fluid which it contains is bloody and increased in quantity. This accounts for the profound deafness. Second, we have the semicircular canals hyperæmic, with deposit of chalk concretions on the membranous portion of these canals, which accounts for the staggering gait of the patient, or a tendency to fall. Third, we have alterations in the bone structure which contains the most important and delicate parts of the ear, the petrous portion of the temporal bone. Fourth, we have ankylosis of the stapes to the walls of the fenestra ovalis, so that it has no power to move by the impulse of sonorous vibrations, which are conveyed in mass and not as musical tones.

In syphilitic necroses of flat bones there is a new osseous formation which takes place at the edges. The diploë of the bones becomes more compact, and upon their external surface small hyperostoses are met with. A microscopical examination of the squæstra shows the medullary cavities of the diploë replaced by very narrow canals, and the transformation has taken place in consequence of the formation of osseous tissue which, being deposited, layer by layer, in the interior of the canals, has narrowed them. The purulent inflammation of both ears, with perforation, or evidences of the same, in new-born children, the result of congenital syphilis, accounts for many of the cases of congenital deaf mutism. The dropsy and changes in the membrana tympani account for its white and dried character and appearance. The deep-seated ulcers in the Eustachian tube, unless very promptly treated, must, in a very short time, destroy the function of this important part of the ear, while the pointed condylomata destroy and contract the meatus for the reception of sonorous vibrations.

PROGNOSIS.—The prognosis in these affections of the ear depends almost entirely upon the stage at which the patient is suffering from syphilis, and

also the duration of the disease. In primary and secondary manifestations much benefit will result from a careful and active treatment, both local and general. In the tertiary cases among the poor the prospect is unfavorable, while with the wealthy, and even those having the comforts of home, proper food and attention, most cases will recover if brought to the aural surgeon in the early stage, and while the general health is still good.

TREATMENT.—Condylomata of the external auditory meatus. The excrescences are to be touched with nitrate of silver, after which a poultice should be applied. The subsequent treatment consists in washing over the morbid growths with a strong solution of nitrate of silver, every second or third day, and in the intermediate time keeping a dossil of fine lint, wet with diluted liquor plumbi, applied to the concha; besides the internal administration of Plummer's pill and sarsaparilla.* By persisting in this treatment for upwards of two months, the condylomata will disappear leaving the meatus natural, when the membrana tympani will be found unimpaired and the hearing restored. Broad condylomata in the external meatus occur mostly on one side only, and in persons whose ear canals are narrow. They begin in the depth of the meatus with red patches which develop into slight elevations (papulæ) and well marked condylomata.

Complications with severe affections of the middle ear and rupture of the drum membrane. Relapses were noticed, together with other symptoms of syphilis, about six weeks after the appearance of the affection. Mild cases were cured by constitutional treatment *alone*; severe cases required local treatment additionally, namely, abscissions of the prominent excrescences, cautious touching of the deeper ones with nitrate of silver in substance, and most careful cleansing with a weak solution of acetate of zinc and hypermanganate and chlorate of potash. In other cases, in my treatment of condylomata situated in the external meatus, or on the edge of the membrana tympani, or in the throat

—the latter being the locality in which I have most frequently found them to occur—I employ nitrate of mercury in solution of one part to twelve of water, applied to the part so as to destroy not only the superficial covering, but the deeper diseased tissue. The parts should be washed with lime water and calomel; also apply a dossil of lint with powdered iodoform and tannic acid to the meatus. Of constitutional measures, I prefer the hypodermic injection of the bichloride of mercury, or the biniodide compound solution,* or biniodide pills. If the weather be cool or damp, care should be taken to have the patient well covered with warm clothing, and he should have a full meat diet, avoiding green vegetables or acid fruits, and employing tonics to nourish the system. In the treatment of what is now known as "Heredito-syphilitic" affections of the ear, associated with eye affections, to which a reference has already been made, and which comprises much the largest number of cases—which are almost all the result of the disease being received by the mother and transmitted to the child—it is in this class of cases that almost all of them have some affection of the eyes; in sixteen, six had at one time keratitis, and were liable at times to relapses. There cannot be a doubt in my own mind that there must be a pathological reflex relation between the eye and ear. This may be through the medium of the trigeminus.

1. A man lost his right eye by a wound from a fragment of iron producing traumatic cataract; as a result of this accident he became deaf in the right ear. In 1880 he received a similar fragment in the left eye, and he became deaf in the left ear. He was an

* R Red iodide of mercury.....gt. xvss
Iodide of potassium.....ʒj-3v
Distilled water.....fʒj-fʒvj

M. Dissolve and filter, then add simple syrup until the whole measures fifty fluid ounces.

Dose, one tablespoonful, *ter in die*, containing one-seventh of a grain of the red iodide of mercury, and seven and three-quarter grains of the iodide of potassium, may be given three times a day. This preparation, says the late Dr. F. F. Maury, of Philadelphia, has never been known to salivate a patient, and is the best form of administering mercury in chronic syphilitic taint.

* Pilulæ antimonii compositæ, U. S. P.

alcoholic subject. 2. A child, aged twelve, was struck by a snow-ball in the right eye; he became deaf in the right ear. Father and mother were syphilitic. 3. A girl, aged eighteen, scrofulous, deaf and almost blind; multiple lesions of the sclerotic, cornea and iris; double iridectomy; sight was restored to the patient and hearing improved. 4. A girl, aged eight, deaf, ocular lesion; iridectomy, amelioration of vision, and diminution of deafness with reserve.

There is also a ready connection between the eye and the throat, through the duct and lachrymal canal to the nose, thence along the Eustachian tube to the middle ear, and then extension to the labyrinth. In this class of cases in children or young persons, if mercury has not been employed, a fair, careful trial must be made with it, in the form of the *hyd. cum cretæ*, with a small quantity of opium, with children, or even calomel, well guarded; or the use of mercurial ointment; or still better, the oleate of mercury by inunction, followed by syrup of iodide of iron and nourishing diet. The patient usually states that the giddiness and deafness which follow the eye affection are very sudden; but by careful inquiry it will be found that there was some pre-existing deafness. If we have found that the patient has been fully under the influence of the mercurial for a considerable time, then we must resort to the iodide of potassium in large doses, kept up for months, while, under all circumstances, the local treatment of the catarrhal deafness must be attended to. For the dizziness, resort must be had to the bromides, quinine and the hydrobromic acid, being careful not to induce dyspepsia by their use.

CONCLUSIONS.

First.—That syphilitic diseases of the ear are less numerous in the United States than in Great Britain or Europe, and that it is not so frequently a cause of deaf mutism.

Second.—In almost all constitutional syphilitic diseases of the ear in children and young persons it is associated with some affection of the eyes, throat and nose. The deafness which often follows the improvement in the eyes is sometimes profound.

Third.—Persons who have suffered from constitutional syphilis, especially young persons and children, have great impairment of conduction of sounds through the bones of the head. Even in adults with constitutional syphilis the tuning-fork in some instances cannot be heard on the bones of the head or face.

Fourth.—In a few cases the first indication of a syphilitic diseased ear is a primary ulcer in the throat, naso-pharyngeal space, or in the auditory canal, or near the membrana tympani.

Fifth.—Purulent otitis media, or otitis media serosa syphilitica, may occur in utero, or in very young infants, while in young persons and adults we may have congestion of the tympanic mucous membrane from the same cause, anchylosis of the bones of the ear, with bands of adhesion in the middle ear, by extension from the throat to the Eustachian tubes.

Sixth.—Syphilitic disease may affect the most vital part of the internal ear, labyrinth, semicircular canals and cochlea, with hyperæmia, marked thickening and dryness of the membranes of the round and oval windows and vessels which supply the internal ear. There is also disease of syphilitic nature in the auditory nerve, also the brain itself, in the formation of disseminated small nodules within the nerve centres. This form of disease of the ear is most successfully treated by the combined use of pilocarpin and mercury.¹ Another valuable preparation in obscure syphilitic cases is the following:

R Hydr. bichlor.....gr. $\frac{1}{2}$

Acid. arsen.....gr. $\frac{1}{4}$

Ferri pyrophosphat.....gr. vi

M. Divide in pil. No. xxiv. S.—One three times a day.

Care must be exercised in the use of powerful drugs, as there have been cases of jaborandi and pilocarpin poisoning. Two cases have been reported of poisoning: one from two drachms of the fluid extract of jaborandi (which required no antidote), and the other from swallowing a considerable dose of the fluid solution of pilocarpin used for stimulating the hair, instead of a solution of quinine. In both cases the symptoms were profuse perspiration and

¹ See p. 496, Author's "Manual of Diseases of Ear," for full account of cases.

salivation, dimness of sight, prostration, a sensation of cold tremor and extreme general debility. The treatment of the pilocarpin case was with atropine, which is the antidote.

THE OXYGEN TREATMENT.

BY JOHN AULDE, M.D.,

Demonstrator of Physical Diagnosis in the Medico-Chirurgical College of Philadelphia.

IN ALL temperate climates where there is a tendency to the development of consumption, physicians will be called upon to exert themselves while ministering to the wants of patients; so that a few words on the subject of the oxygen treatment will no doubt prove interesting to a large circle of practitioners. The treatment of disease by this method is by no means a new discovery, as the remedy was under trial in Europe a century ago, and twenty years ago or more in this city; but like many other remedies which have preceded it, its great value was not fully understood and appreciated until it got into the hands of the quacks, who advertised it as an universal panacea. It is strange how quickly anything of this character may be boosted into notoriety, which shows conclusively the value of the judicious use of printer's ink. Owing to the generous advertising it has received in the past six or eight years, the oxygen treatment has been regarded as the last resort of the consumptive; and while the quacks gave oxygen inhalations, the regulars gave cod-liver oil. When this final stage was reached, the anxious expression disappeared from the doctor's face, and the patient had but little time in which to offer complaints. But the use of oxygen is not confined to those who advertise, although it must be confessed that they are largely the ones who make the profit; nor is its use limited to the treatment of consumption and wasting diseases. For the most part, my observations have been confined to this class, and as the remedy has done me good service in several cases, it would be selfish to keep the matter secret.

As there is an impression abroad that the use of oxygen in therapeutics requires special skill on the part of the

physician, and that it involves a considerable outlay on the part of the patient, a few words as to the apparatus needed and the expense connected therewith may not be out of place in this connection. The appliances requisite for this purpose I have obtained from the American Oxygen Association of New York, and from a mechanical standpoint, the method is simplicity itself; so that on this score no objections can be offered, and with moderate expense, the best of facilities are at command. Unsatisfactory results, it is true, have attended the efforts of some, but chiefly for the reason that they have been contented with the use of ordinary commercial gas, compressed in iron or copper cylinders, a method strongly condemned by Dr. Wallian, who believes that by this process the gas is to a certain extent devitalized. Observers are therefore cautioned that the best results will follow the use of the strictly nascent or fresh gas, which may be readily prepared, all impurities or deleterious elements being promptly eliminated by the process.

For securing perfectly fresh oxygen, two sources are available. The most convenient, and at the same time least expensive, when but a small quantity is required, is by means of a preparation of hydrogen dioxide (H_2O_2), commonly known as peroxide of hydrogen, which, on being moderately warmed, gives off one equivalent of its oxygen, and in a state so decidedly active as to strongly resemble ozone. Brunton says, "It has therefore been used for similar purposes to ozone. It destroys bacteria and is a powerful antiseptic." This is the method I have adopted for the most part, and although the volume of gas realized is so small as to seem insignificant, it apparently makes up in quality or intensity for the lack in quantity. The other method, recently made available, is by means of a portable generator, which may safely be placed in the hands of the patient or an intelligent nurse, the whole outfit not costing more than twenty-five dollars.

When the peroxide of hydrogen is to be used, the patient is supplied with a bottle of the solution, generally employed in the strength of ten or fifteen volumes, or two to three per cent., in

water, together with an inhaler, the use of which can be explained in a few minutes. A small portion of the dioxide solution is placed in the inhaler along with a little clean water, and heat applied; the evolution of oxygen soon follows, and the patient is permitted to practice inhalation from ten to fifteen minutes two or three times daily; or in case the inhalation is found to be too laborious, five minutes or less will be sufficient, in which case it is advisable to increase the frequency of its administration. The method resolves itself into a pulmonary gymnasium, by which the patient is permitted to inhale pure, warm air, charged with oxygen, while carbonic acid, which ordinarily accumulates in the lungs and causes depression, is thrown off. Frequently I have thought the patients would derive at least some benefit from breathing through clean water, providing they would do it faithfully; but, as a rule, the friends are not satisfied, nor will the patients themselves be prompted to make the same effort without some machinery and medicine which cost money, a sad commentary upon the hygienic work the conscientious physician is ever on the alert to direct. The use of oxygen is therefore, in my opinion, simply auxiliary to the general treatment, and not a specific. Conducted in the manner I have indicated, there is no doubt of its efficiency, and, by keeping this idea constantly in view, much good may be accomplished in the way of relieving many of the unfavorable symptoms which arise in the course of treatment of these cases, which are apparently hopeless from the beginning.

One of the first cases in which it was used under my observation occurred some years ago, and must be classed as a signal success. The patient was a gentleman well up in the sixties, and was suffering from general debility along with chronic gastro-intestinal catarrh. There was also a history of chronic laryngitis, for which tar inhalations had been used with a moderate degree of success; but the most successful medication appeared useless so far as producing any appreciable effect, and as a last resort he was induced to try the oxygen treatment. In a short time there followed marked improve-

ment, and, without other medication, he rapidly gained strength and flesh. About a year and a half ago, there was another break-down, but under the use of oxygen inhalations, together with suitable medication, he recovered, and has enjoyed fairly good health since; yet he is not what we would call robust. The gastro-intestinal affection has not been wholly relieved, although with the aid of digestive ferments he manages to assimilate his food pretty well, and has lately been actively engaged in farming, a business which I advised him to undertake instead of office work, which he had followed for twenty years or more. Sudden changes in the weather affect him unfavorably, but there is no history or indication of any rheumatic tendency; neither is there of gout, although indiscretions in diet occasionally bring him up with a short turn.

Another case which may be mentioned was that of a widow lady, aged 35, who two years previously had buried her husband, his death being due to phthisis pulmonalis. During all the time of his illness, she had given him her personal attention, and when first seen there was a suspicion that she also had contracted the disease. Later observation, however, convinced me that I had to deal with a case of catarrhal pneumonia, chronic in character, although I was strongly impressed with the idea that it would ultimately become catarrhal phthisis. The cough was exceedingly intractable, with great depression of the vital powers. The sputa were thick and tenacious, the color and consistency indicating the breaking down of pulmonary tissue to such an extent that my prognosis could not be other than unfavorable. This information was kept a profound secret from the patient, but the relatives were fully advised as to the probable results of treatment. It may be mentioned here that for the preceding two years she had been under the homœopathic *regimé*, and had been informed positively that she was going the same way as her husband, all of which, no doubt, added to her depression. The fact that she feared this to be the final result was about the only redeeming feature of the case, and I proceeded with the greatest delibera-

tion. Suitable medication with a view to maintain the nutrition was regarded as of the first importance, and the use of the oxygen was attended to faithfully by both patient and nurses. At first, the inhalations could be continued for but a few minutes at a time, but in the course of a week she was able to take the treatment for the space of ten minutes, about four times daily.

Soon after treatment was begun there was rebellion in the camp; the effort required proved rather depressing, and, besides, she had several serious attacks which threatened to terminate fatally. These attacks were characterized by great cardiac pain, dyspnoea and a sense of choking or smothering, and I must confess that on several occasions the end seemed near at hand. They were followed, or rather accompanied, by profuse expectoration of muco-purulent clots of such size that I will not undertake to make any comparison, lest it should appear to be a gross exaggeration. In the course of a month or so, after she was able to sit up in bed, she questioned me very pointedly in regard to her prospects, and while I was tempted to tell her what I considered her true condition, the belief that she would quickly succumb under an unfavorable prognosis prompted me to gloss the matter over, and she appeared greatly relieved. A week later she surprised me with the information that she was to be married, and that her engagement had been determined altogether on my prognosis. Here was a dilemma; but the mischief had been done, and it was then too late to retrench. She followed up the oxygen treatment for the period of two months in all, and was married shortly after treatment was discontinued.

Nearly two years have now elapsed, and with the exception of one attack of illness, which usually attends ladies soon after pregnancy takes place, she has enjoyed fairly good health. What the final outcome of the case will be, I am not at present prepared to say; but certainly the prospects are far from bright. Want of space prevents me from giving any of the details of the system of medication which was carried out, but suffice it to say that the picture is not overdrawn, and I am fully con-

vinced that the inhalation of the oxygen saved her life.¹

About two years ago I saw for the first time a married lady, aged 25, in the last stages of phthisis, who died two weeks later, in whose case I also adopted the oxygen treatment, first by the use of a spray, and later by inhalation. The spray was used simply as a temporary expedient, because the respirations were so frequent that inhalation could not be practised. There was extensive consolidation throughout both lungs, the breathing space being wholly confined to a limited area in the upper anterior portion of the chest; but in the course of a few days after inhalation began, profuse muco-purulent expectoration followed, affording great relief to the embarrassed respiration. The pulse was lowered and became much stronger, but the malady had done its fatal work and she expired from exhaustion. In this case the subjective symptoms were manifestly improved, and the oxygen added more to her comfort in the last days than the previous use of anodynes and Bergeon's method had ever been able to accomplish.

The case of an elderly single lady is worthy of mention, because of the almost immediate relief of "jerky" respiration, which had existed for more than twenty years. The patient had long been a sufferer from chronic catarrhal pneumonia, and had been under my observation for several years. Sometimes it was for the relief of an old diarrhoea which had been lighted up; then it was a bad cough which prevented her from sleeping, and again it was intestinal indigestion. Owing to unnecessary exposure in the winter of 1886-7, she was threatened with acute pneumonia, and was making slow progress towards recovery when I advised the use of oxygen. The suggestion was promptly adopted, and after two days' practice the "jerky" respiration had entirely disappeared. The treatment, along with appropriate internal medication, was continued for two months and she made a good recovery. I do not mean to say by this that the recov-

¹ Patient delivered in July, after a slow labor, and has now fully recovered from the unusual drain on system incident to pregnancy.

ery was perfect, because there were organic changes due to age and disease which will prevent her from ever becoming robust; but she has enjoyed better health since than she had for many years previously. If this patient could have been prevailed upon to take regular breathing exercises in a suitable atmosphere, I do not pretend to say that she would not have done as well as she did under the inhalation of oxygen; but it is exceedingly difficult to secure in this changeable climate a proper atmosphere, and besides the physician is often unable to get the co-operation of the patient without an expenditure of money for the machinery.

A gentleman, aged 32, now under treatment, was seen for the first time about six months ago, at which time he complained of cough, difficulty in breathing, lack of appetite, and an insupportable sense of pain or distress in the throat, directing my attention to the neighborhood of the larynx. For a year previous to this time he had been under the care of several physicians, regular and irregular, and to all appearances he was daily getting worse instead of better. He had not been able to gain undisturbed sleep for a whole hour at a time for more than three months, and as a consequence he was pretty well fagged out. Physical examination revealed the presence of numerous rales, moist and sibilant; but there were no laryngeal ulcerations, although the mucous membrane was very much congested. The circumstances all pointed clearly to a case of phthisis pulmonalis, but there had existed no profuse expectoration, such as we expect to find in cases which have run so long a period.

To relieve the throat symptoms, and if possible the cough at the same time, demanded immediate attention. The physicians who had preceded me had probably exhausted all the anodynes in their futile attempts to overcome the cough, and to increase the dose would only be adding insult to injury. If a single remedy could be found which would answer the purpose, and would not at the same time derange the digestion, which was then in a deplorable condition, I reasoned that we should have a desideratum. I was not slow,

therefore, in taking advantage of the teachings of Professor Fraser, of Edinburgh, who sometime previously had favored me with a copy of a clinical lecture upon "Dyspnœa, especially on the Dyspnœa of Asthma and Bronchitis, and the effects of Nitrites upon it." The patient was ordered to bed at eight o'clock in the evening, and was provided with a one per cent. solution of nitroglycerin to be taken in the following manner: Commencing with four drops dissolved in a tablespoonful of water, he was to take one drop additional every fifteen minutes, until he had taken in all eight drops. The remedy acted like magic, the cough was subdued, he passed a comfortable night, and did not care to rise the next morning till late. The experience of lying in bed and feeling comfortable was a luxury altogether new to him, his condition having been such that he was afraid to go to bed, and was always glad when the first streak of day appeared. So burdensome had life become to this poor man that he said he would willingly die rather than go to bed. On the day following the cough was loose, expectoration free, and he congratulated himself on having made a substantial step towards recovery. The use of this remedy was continued from time to time in small doses until all trouble with the throat had disappeared; but at the expiration of a month his general condition remained the same. Attacks of hectic reappeared at short intervals, accompanied with great depression, and one day it seemed that he was about to breathe his last. At this critical juncture he was provided with the oxygen, and although unable at first to practise inhalation for more than five minutes at a time, and that somewhat imperfectly, he improved under its influence, and the tendency to syncope has disappeared. The use of the remedy was continued for about two months, certainly with benefit, and forms an illustration of its value as an adjuvant to other treatment by procuring more perfect aëration of the blood.

I may add that this patient is still living (May, 1888), but he is scarcely able to do more than dress himself and get around his room with care, his

strength being limited. To the credit of the oxygen, it may be said to have prolonged his life and measurably relieved his distress, while in addition it has evidently had something to do with laying a foundation for more perfect digestion.

Having already far exceeded the limits originally mapped out for the paper, I will only add that other cases of a similar character have been equally benefitted by this method of treatment. The dioxide solution has also proven acceptable when used as a spray in the case of croup; but I have far greater faith in inhalations of the gas than when the above solution is used locally, except that it may be used advantageously as a topical application in ulcers, in diphtheria, and in like affections.

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TRANSLATIONS.

ETIOLOGY AND TREATMENT OF YELLOW FEVER.—(GIBIER, in *La France Médicale*).—In a previous article the result of some researches made upon yellow fever at Havana were presented to the Academy, and he now gives a resumé of all the observations made since.

First. In a very large majority of the cases in which examinations have been made of the blood, bile, urine, the pericardiac serosity and the viscera (with the exception of the digestive tube), there were found no micro-organisms. So that it may be asked if it is not likely that in the rare cases in which microbes are met it is not possible that they were accidentally introduced in the cultures, particularly as the species are *variable*. However, it can be admitted as possible that they may have been introduced into the circulation accidentally by means of intestinal lesions.

Second. The intestines of subjects attacked by yellow fever contain a black or dark matter, more or less abundant and toxic, as shown by experiment.

Third. From this black matter taken from the intestine he has isolated a bacillus, which seems to play an important rôle in the coloration of this substance, if not in the pathology of yellow fever. This microbe blackens the body in which it develops. It is

a bacillus sometimes straight and short, sometimes a little longer and curved. It liquefies gelatine. Inoculation of the intestines of animals (dogs and foxes) with a small quantity of the culture of this liquid, produces grave effects, and even death, with the formation in the intestine of a matter like that found in men dying from yellow fever. The other characteristics of yellow fever are as follows: The cultures exhale an odor *sui generis*, and like that of black vomit. A temperature of 60° C. destroys it in ten minutes; a cold of 10° below zero continued for an hour does not kill it.

Drying in the open air in the shade kills it in twenty-four hours. It cultivates well in sea water and lives at least six months, according to my observation, in contact with ordinary microbes.

A temperature above 20° is necessary to its development.

It does not appear to produce spores. The long, undulating form which it takes in old cultures would seem to class it with the spirilli.

If this bacillus is indeed that which causes the phenomena of yellow fever, the preceding characteristics will explain the fact that this disease is only observed endemically in a certain number of seaports of warm countries, where the soil contains the germ of a malady comparatively unknown at a short distance inland.

Fourth. The constant presence in the intestines of a matter more or less abundantly *toxic*, the early occurrence of gastro-intestinal troubles (vomiting, epigastric pain, etc.), which usually persist during the entire course of the sickness; the brusque onset of these symptoms, the absence of microbes in the blood and in the viscera, other than the intestines, are other characteristics which militate in favor of the intestinal theory of yellow fever, and if this theory is in accord with the facts, the treatment which I have indicated in a conference with the physicians at Havana (repeated purgatives and intestinal disinfectants), should be successful in the disease which it is intended to combat. Inversely, if a grave case in the civil hospital of Havana, to whom this treatment was given with success,

does not remain unique, the intestinal theory of yellow fever may be considered established. *Naturam morborum remedia demonstrant.*

TREATMENT OF ANGINA PECTORIS.—LIEGEOIS objects to the use of pyridine and of antipyrine during the access, because these agents are vaso-constrictors, capable of accentuating the anginose symptoms. He recommends, during the first half of each month, the iodides in doses of 4 to 45 grains, and the latter half of the month two to twelve drops, three to six times daily, of the one per cent. alcoholic solution of trinitrine. This regimen should last from one to three years. Both these agents lessen vascular pressure and facilitate the interstitial circulation of the heart, while the iodides cause resolution of endarteritic or periarteritic lesions if not too deeply rooted.

Under this treatment the mortality has dropped from 90 to 40 per cent. In the same manner should be treated functional angina, or vaso-constrictive from ischemic anemia of the myocardium; the nitrite of amyl during the paroxysm, trinitrine afterwards. The iodides should be used in the angina due to tobacco: recent clinical researches having established that latent sclerotic myocarditis is not rare among nicotineics.

Angina from hyperemia of the cardiac plexus, in rheumatism or gout, calls for revulsives over the joints, and salicylate of soda internally, tempered by morphine injections or by a little trinitrine.

Energetic revulsion at the level of the aorta constitutes, with morphine injections, the best treatment of neuritic angina, followed by the iodides. Neurotic angina, during its access, when it is neuralgic and only neuralgic, justifies the injection of morphine; afterwards, we put in operation the multiplied resources of hydrotherapy, and, if the pain is provoked by gastric troubles, the milk diet, bitters, lavage and evacuants, to prevent a return.—

Gazette Méd. de Nantes.

MENDOZA reports, in the *Revue de Laryng.*, etc., a case of epilepsy cured by the ablation of a polypus which occupied the external auditory meatus.

THE INFLUENCE OF CONDURANGO UPON THE SECRETIONS OF THE DIGESTIVE TRACT. (Tchelzew).—This work considers: 1. The action of condurango upon the gastric juice. 2. Its influence upon the secretion of the pancreatic tract. 3. Its influence upon the bile. The experiments were made upon dogs having fistulas. The majority of the dogs had fasted from 18 to 20 hours. The condurango was given to them in a decoction, 15 grammes of the root to 300 grammes of water evaporated to 180°. The author obtained the following results: 1. If the dog had not fasted, the condurango did not produce a convincing effect. 2. On the contrary, in those dogs who had fasted from 18 to 20 hours, condurango produced an increase in the gastric juice. 3. The decoction of condurango undoubtedly increased the secretion of pancreatic juice, and in a very marked degree. 4. The condurango acted also on the secretion of bile, but less upon the pancreatic juice. The result of the experiment shows that the drug had more action on the bile and pancreatic juice than upon the gastric secretion.—*Bul. Gen. de Thér.*

ANTIPYRINE IN A NEW ROLE.

Dujardin-Beaumetz publishes in the *Bul. Gén. de Thér.* a letter from Dr. Samedi of Nice, in which he reports the case of a young, vigorous primipara who, having neglected precautions before accouchement, was suffering greatly with cracked nipples and gathered breasts. Having decided to dry up the secretion of milk, for ten days all remedies used were without effect. She was then given antipyrine in daily doses of 50 centigrammes, divided in three powders. The secretion of milk diminished the first day and disappeared entirely the third day.

How does antipyrine act in such cases? The explanation may be found in the theory of metastasis, since antipyrine acts upon the thermo-inhibitory center in regulating heat, dilates constantly the blood vessels of the skin, augments their circulation and lowers temperature.

GRAWITZ records two cases of sudden death in infants, which may have been due to pressure of a large thymus upon the trachea.

ACTION OF RUBIDIUM AND CÆSIUM UPON THE HEART.—Botkine (*Wratch*) finds that the chlorates of these metals increase the arterial tension and slow the pulse.

This slowing depends on an irritation of the pneumogastric center, the periphtric moderating apparatus being equally influenced by these salts.

The increased blood pressure is due mostly to the action on the heart and the vessels.

The difference between the action of these salts and those of potassium is purely qualitative. The salts of rubidium act more powerfully than those of cæsium. These salts were tried in ten cases of deficient compensation. The action was feeble, but nothing objectionable was noted. The pulse and the general state were bettered.

The dose was 35 centigrammes of an aqueous solution of chlorate of rubidium five times a day.

—*Bull. Gén. de Thér.*

CRESYLIC ACID.—DELPLANQUE, who has studied this substance experimentally, gives his report in the *Bull. Gén. de Thér.* The following are his conclusions:

Cresylol is a body which possesses powerful antiseptic properties. Its antiseptic power is superior to that of its congener, phenol. In spite of its great antiseptic powers, it is but little toxic, since to kill one kilogramme of rabbit requires four times as large a dose as it does of phenol.

GROGNOT reports a case of œdema of the face and breasts following the injection of one gramme of antipyrine. The swelling subsided in the course of an hour.—*Bull. Gén. de Thér.*

Professor Léon Le Fort strongly combats the idea that the air can transmit disease germs. He believes that such germs are only carried from one patient to another by contact with instruments, fingers, etc. To put his belief to a practical test, he has for some months exposed freely to the air the wounds caused by his operations, among which are included ten amputations and resections. All these and many others have healed by the first intention.—*Journal d'Hygiène.*

TREATMENT OF DIPHTHERIA.—

R	Ess. gaultheria.....	gr. 6
	" thyme.....	" 6
	" eucalyptus.....	" 10
	Chloroform.....	" 4
	Ether.....	" 4
	Ess. turpentine.....	" 12
	Oil of sweet almond.....	" 60

M. S.—For atomization.

This is of special use during the access of suffocation. The eyes should be protected by a napkin.

With this treatment the membranes disappear "like a charm."

The enlarged cervical glands should be rubbed with the following liniment:

R	Iodoform.....	gr. 6
	Ess. menth.....	" 4
	Powder and add	
	Fl. ext. phytolacca.....	" 15
	" water-hemlock.....	" 8
	Lanoline.....	" 20
	Camphor pomade.....	" 60

If the Schneiderian membrane be attacked, finely powdered boric acid should be employed.

—CZARTORYSKI, in *Revue de Thér.*

Dobroklouski states as the result of his experiments upon frogs that *grindelia robusta* lessens the force of the cardiac pulsations, and that the nervous irritability disappears before that of the muscles. The preparation employed was an American fluid extract. He reserves his final conclusions until the experiments have been repeated upon warm blooded animals.

—*Centr. f. Med. Wiss.*

BARTHELEMY reports, in the *Gazette Médicale de Nantes*, two cases of viper bites successfully treated with hoàng-nân. The daily dose in one case varied from 2¼ to 18 grains, the entire treatment lasting forty-three days, in which time 210 grains were taken.

In the other case but 90 grains of hoàng-nân were required to effect a cure in five days.

NOCARD, of the Veterinary School at Alfort, at the Congress for the study of Tuberculosis, recommended that no milk should be used without having been boiled. Goat's milk may be excepted, as a tuberculous goat is a pathological curiosity.—*La France Méd.*

The notes from the Philadelphia Clinics and Societies, which have been suspended during the summer, will be resumed in the next number.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 1, 1888.

EDITORIALS.

THE YELLOW FEVER IN FLORIDA.

THE situation in Florida at the time of writing is rather ominous. It is doubtless true that the fever has been reported at but few localities, that the number of cases is as yet small and the type of the disease appears to be comparatively mild. But it has jumped from Plant City, in the middle of the Peninsula, over 120 miles to Jacksonville, in the north. From Jacksonville six railways offer opportunities for the spread of the disease through the country, in spite of the impossible quarantine with which the city is surrounded. That all efforts to stamp out the first blaze of the coming pestilence have proved ineffectual, may be inferred from the report that infected houses are being burnt.

The principal lesson taught by the study of yellow fever is the paramount importance of prevention by hygienic measures. In this connection we quote from a report upon the cholera in Calcutta during the present year, as the language is equally applicable to the disease under consideration:

"Most of those who heard the discussion at the Society of Arts must have marvelled that from among the many Indian 'authorities' who, in dealing with the etiology of cholera in India, so often speak with bated breath about influences, waves, etc., passing over the land, there have not arisen more who are strong enough to indicate their discontent with the present state of things, and to demand that before this mystic talk is regarded as affording any suffi-

cient explanation of the terrible mortality of Calcutta, the plain language of a second Simon should be heard, to the effect that in Calcutta, as it formerly was in London, excrement-sodden earth, excrement-reeking air, excrement-tainted water, these are for us the causes of cholera."

Furthermore, one of the speakers said that he thanked God for cholera, which would not be confined to India, but compelled England to do her duty by her Asiatic subjects, in enforcing the same thorough hygiene in India which enables her to dispense with quarantine at home.

The history of yellow fever in South America teaches the same lesson. In Rio de Janeiro the disease is confined to the flat, badly drained sections of the city, while the slopes of the hills are free. At St. Catharine which is built on the steep acclivities of a hill, with good natural drainage, neither yellow fever nor cholera have ever appeared. At Buenos Ayres, the ravages of these diseases have been appalling. This city is built on a low, level plain; the streets were filled in with manure in many instances, while huge abattoirs are located upon the Riachuelo, above the city water works. Many thousands of cattle are annually slaughtered here for their hides and tallow, while the carcasses are thrown into this river to pollute the water and block up the sewer.

We may be sure that wherever an outbreak of yellow fever occurs, the hygienic conditions are at fault. In Florida the sanitary problem is beset with peculiar difficulties. The luxuriant tropical vegetation affords an unlimited supply of decaying organic matter; the flatness of the country, but little elevated above the sea and abounding in swamps, renders it difficult to secure proper drainage. The state is sparsely settled and money is not very plentiful. These considerations, to-

¹ *Practitioner.*

gether with the fact that the season most favorable for the operations of the yellow fever germ is just beginning, lead us to fear that the outbreak in Florida may prove serious.

The duty of suppressing it, however, could not be entrusted to more capable hands than those of Surgeon General Hamilton and his associates. The country will owe them a heavy debt of gratitude if they succeed in stopping the progress of the threatened pestilence.

To us in Philadelphia and other Northern cities there are two duties. The first is to hearken to the first cry for help from our Southern brethren, and to extend to them every assistance in our power. Even from a selfish point of view, it is better to contribute a few thousands in fighting the disease in Florida, rather than allow it to spread over the country. Secondly, we should use every effort to fence ourselves against the enemy by putting our own city in order. Though the danger is still remote, money thus spent is well invested, and brings a good interest, in improving the general health rate.

In another department will be found a resumé of Gibier's investigations upon this disease, which, in some respects, agree with the conclusions reached by Sternberg.

Whether the true cause of yellow fever has been found by them or not, the history of the disease points strongly to a microbic origin. The successes which are reported on all sides from the use of germicides, in the treatment of cholera infantum and typhoid fever, indicate the use of similar agents in yellow fever; especially as the microbe described by Gibier is found *only* in the intestinal canal. The field is most promising, and we may hope that among the salicylates, sulpho-carbolates, naphthol, resorcin, boric acid, and the older germicides, chlorine and sulphurous

acid, an agent may be found which will put an end to the pernicious activity of the vomito germ. W. F. W.

PLETHORIC NEURALGIA.

WE have always considered DR. ANSTIE's book upon neuralgia as one of the best examples in existence of the valuable work which may be accomplished when a capable man sets himself down to follow out a single subject to its ultimate ramifications. We have read this book repeatedly, and each time with renewed admiration. But even in it may be seen how great is the tendency of men, no matter how thorough is their scientific training, to see through their own individuality as through colored glasses. Himself a weakly man in physique, Anstie saw only the condition of debility as underlying neuralgia. Hence, his strenuous advocacy of supporting measures. "A neuralgic should eat from one-third to one-half more than ordinary persons," for most neuralgias are anæmic, suffering from privation, overwork and under feeding, worry or grief, and show that lack of balance in the economy which goes by the name of "nervousness," and is invariably a condition of weakness. Stimulants, stimulant doses of sedatives, tonics, blood-makers, these constituted his therapeutical repertory.

In the majority of cases he was right. But there exists another class of neuralgic cases which are distinctly connected with plethora. In one such case we placed a drop of the patient's blood under the microscope, and beside it, for comparison, a drop of blood from pernicious anæmia. What a contrast! The neuralgic's blood was fairly gorged with red globules, which were packed so closely that they could hardly find room to flow; while their deep red hue offered a contrast no less striking to the pallid tint of the

anæmic's corpuseles. What place could there be for "iron, quinine and cod-liver oil," arsenic, phosphorus and wine, in the treatment of such a condition? Nor would it be a whit less irrational to "dab" at the pain with cannabis, antipyrine or theine, while ignoring the state of the blood. In this case all stimulant remedies aggravated the pain, while the bromides in full doses benumbed it. But the true remedy was found in salicylate of sodium, in scruple doses. The first dose gave instant relief, and the second has never failed to remove the pain. The drug was given in the effervescent form, with but little water. A diet of fruit and succulent, woody vegetables, avoiding meat and alcohol, a decided increase in the exercise, with the occasional administration of sulphate of soda, produced an improvement in his condition which multitudinous tonics and neuralgia cures had failed to secure. Our forefathers bled too indiscriminately; we have for twenty years been feeding and toning up quite as generally; and the time is not far off when a reaction will set in.

W. F. W.

THE REACTION IN GYNECOLOGY.

THE laparotomy epidemic shows signs of abating. It has been unusually severe and extended, affecting all classes from the gray haired professor to the callow fledgling upon whose diploma the ink was scarcely dry. For a time it seemed that the only alternative was to spy or be remanded to oblivion.

The history of modern medicine gives many instances of these peculiar "crazes," which periodically affect the profession. Tenotomy flourished thus; transfusion was resurrected with a hurrah, and many other operations have in like manner enjoyed a brief season of popularity and been then relegated to their proper places.

It is probable, however, that each of these waves of professional impulse leaves something of value cast upon the shore after its recession.

How far the ebb of the laparotomy tide will fall is uncertain; but it is safe to say that this operation will be done far less frequently than it is at present. People are beginning to ask for the results of the operation; not the number of recoveries from laparotomy, but the cures resulting from it. Mary Putnam Jacobi shows how this question is pressed by claiming that two years must be allowed to elapse before the failure is admitted.

One patient, who had been under our charge for some time for a cerebral tumor, returned, after an absence of some months, with her ovaries removed! Just how the operator expected the operation to prove beneficial we know not; but as his diploma is not yet two years old, it is to be presumed that his erudition far exceeds that of those who are older in the profession. The patient states that her sufferings are tenfold worse since the operation.

The sound, practical common sense exhibited in Dr. Wathen's remarks on this subject at the meeting of the Kentucky State Medical Society is much to be commended.

From many other quarters the same sound doctrine is now being preached; and the ovariologist is now, like his predecessors, to be judged by his results; not those he hopes or believes he has secured, but those which he can prove.

ANNOTATIONS.

TREATMENT OF SCROFULOUS GLANDS.—In the *Lancet*, Treves gives a very useful paper on the above subject. He has little faith in the power of drugs to favorably influence the caseous extravascular contents of such glands. Nor has he much more favor for the opera-

tion of scooping out the contents, and leaving the gland-walls to form chronic suppurating cavities indisposed to heal. Sometimes scooping may be advantageously combined with excision; for instance, after excising a mass of glands, one may be found deeply and immovably fixed, and its broken-down contents may be removed by the scoop.

In the removal of these glands he recommends a careful dissection alone, using no directors, handles or fingers. The knife should cut always on the capsule, the cellular tissue being dissected off cleanly. When sufficient of the surface is exposed, a thread is passed through the gland, which can then be drawn forward as the dissection is continued.

In the subsequent management, he has such reason to dread retention of blood, serous oozing, etc., that he does not venture to suture the skin flaps. He allows the flaps to adapt themselves to the underlying tissues, supporting them by pads of antiseptic cotton.

Strict antiseptic precautions are used in the dressings. The patient's head and neck are fixed by sand bags, and he is not allowed to talk or to move, but is fed solely on liquids. Great healing power exists in the tissues of the neck, as well as great proneness to inflammation from the irritation of drainage tubes or the retention of discharges. It is a part which is powerful alike for good and evil. A drainage tube may advantageously be placed in a gland whose contents have been scooped out, but not in the deep cellular tissue of the neck.

The limitations in the use of absorbents, as well as their true value, were well exemplified in a case recently treated at the Medico-Chirurgical Hospital. The patient had been subjected to a prolonged course of such remedies, with no apparent benefit. Five glands which appeared soft were successively removed by excision. The contents of these were found to be cheesy and quite "extra-vascular." With the removal of these sources of mischief, the iodides began to exert an influence for good and the remaining glands dwindled away.

ALCOHOL AND LONGEVITY.—An English statistician announces that teetotalers

do not live as long as drinking men, of every degree, from the occasional sipper to the habitual drunkard.

This goes to show the fallacy of statistics. To advance the claim that the use of alcohol lengthens life is to give up the results of observation and the dictates of reason. What can alcohol do for a man in perfect health but interfere with that harmony in his physical condition which constitutes the normal state? As for the effect of alcohol in disease, no statistics taken from a mass of human beings, the sick from many diseases as well as the sound, are of the slightest value.

A CONTEMPORARY whose amateur editor devotes a large part of his valuable time to regulating the affairs of everybody but himself, some time ago came out with a vicious diatribe against "special notices." He never did such things, and consequently nobody else ought to do so. The effect of the snarl was somewhat weakened, however, by the description in his reading pages of a *patented* instrument for physicians' use, accompanied by a cut, evidently furnished by the owner, and an advertisement.

This was but a momentary fall from grace, and as the editor in question believes in allowing his advertisers to take care of themselves, they do so by letting his journal severely alone.

LORD GRANVILLE recently adverted to the fact that the House of Lords appeared to be composed almost exclusively of aged men, and asked the question: "Should gray heads be the main depositories of governing power?" Men of ripe experience, with a wide and extended acquaintance with society, free from minor views of personal interests, can look to public duty as well as to the advantage of their corporate body; they have fixed principles and acquaintance with custom and precedence; they add weight, respectability and continuity of action to the proceedings in which they take part, and they sometimes add wealth by bequests.

Young men have more power of labor. The capacity to analyze proposals and collect evidence are a power for self-reform, so necessary in a corporate body that has a long life and

guards important interests for others. They give plasticity to a council, holding it in harmony with the interests it represents; they protect the body from falling under the rule of its officers. Middle life originates new ideas, while age criticises.

A governing body should be composed of men in all periods of life; social and professional position, and past services receiving due recognition.

THE *Fort Wayne Journal of the Medical Sciences* appears this month as the journal of the National Association of Railway Surgeons.

As such, it has a distinct and important object in presenting matters pertaining to this particular branch of surgery. That railway surgery deserves at least as much special attention as laparotomy, in a country like this, where railroads and their consequences multiply, will hardly be questioned.

The journal will be published monthly, and with such a field of labor, with such men as Outten of St. Louis, Murdock of Pittsburgh, and Jackson of Kansas City as contributors, and Stemen as editor, it can hardly fail to win success.

THE celebrated house of Merck has put into circulation a publication which they claim is not moved by business, but by professional interest. It is styled *Merck's Bulletin*. While it gives some scanty information concerning the new preparations and chemical substances emanating from Merck's pharmacy, scarcely exceeding that which is usually found on the label of a package, it is simply an advertisement of this house. In this it resembles *Squibb's Ephemeris*, differing in that the latter contains infinitely more valuable material, and is sent gratuitously, without any pretence of being an independent journal.

A VERY successful treatment for yellow fever, in vogue in Rio de Janeiro in 1875, consisted in confining the patient to bed, giving him a little water frequently, and nothing else. It was claimed by its advocates that the stomach is in no condition to digest food, and its ingestion only served to bring on the black vomit, which was frequently avoided if the stomach remained empty.

In one case a patient was kept for

seventeen days without food, and recovered.

The results of this system were at that time reported to be remarkably good.

IN the report of the State Board of Medical Examiners for Virginia it is stated that three candidates presented themselves from the Medico-Chirurgical College, all of whom failed, two of them failing twice.

On inquiring of the Secretary of this Board, however, we find that but one graduate of this school has ever been before the Board; he having appeared three times, and been rejected each time.

How this unfortunate is made to do duty for three is a mystery; but as the statement is made as above noted, we can only surmise that the objections to the Board made by the Virginia Medical College were not without foundation, and that justice is little likely to rule in its deliberations.

GLASGOW LETTER.

THE FIFTY-SIXTH MEETING OF THE BRITISH MEDICAL ASSOCIATION.

I SHALL not attempt to apologize for dating my letter from this smoke begrimed city, because it has become, for this week, the centre of medical interest in the United Kingdom. The fifty-sixth annual meeting of the British Medical Association, which now numbers over twelve thousand members, began on August 7, when Dr. W. T. Gairdner, Professor of Medicine in the University of Glasgow, welcomed the Association in an eloquent and original address.

OPENING CEREMONIES.

Glasgow, though it has grown rapidly within this century, is not a mere new manufacturing town. Its cathedral was founded in the twelfth century, and dedicated to St. Mungo, a Welsh (i.e., British) missionary, whose name was Kentigern, Mungo being a kind of pet name (*Mun*, dear, and *go*, diminutive, = darling). In this ancient cathedral many members of the Association attended to hear a sermon by the Very Reverend John Caird, D.D., Principal and Vice-Chancellor of the University.

The address of the President, delivered on the evening of the first or preliminary day of the meeting, was a fine performance in many respects; remarkable especially for the courage with which it attacked the attempted revival of apprenticeship. Medicine in England had suffered, down to within the memory of living men, from two divergent faults: the tendency of consulting physicians to be distinguished more as the inheritors of the Hippocratic tradition than as the pioneers of a thorough and modern discipline, such as we now associate with the clinical and pathological study of our art; and, on the other hand, "the very imperfect scientific training of the general practitioner, the early age at which he was often withdrawn from school, the distracting influence of the apprenticeship, and the tradesman-like habits arising from the mode of his remuneration," led to the "survival in England of a kind of polypharmacy, which was, up to a quite recent date, nothing less than a discredit to the whole medical profession in this country."

A great part of the credit for the marked improvement which has taken place he claimed for the Scotch universities, which have always insisted on some preliminary grounding in chemistry, physics and botany. Indeed his whole address was an attack on obscurantism in education, general as well as medical; and he quoted largely from some evidence given by Michael Faraday in 1862, who had been painfully impressed by the failure of the best English school and university education to teach men "judgment in natural ways." The "great deficiency in the power of giving the reason why" has not ceased to be a source of weakness to the ordinary Englishman, and is one of the main reasons why quackery flourishes so luxuriantly (both within and without the profession) among fashionable "Drs." He strongly urged the absolute necessity of giving medical students a grounding in physical science; so that, though the physician be not a physicist, he may be a man trained in the discipline and familiar with the resources of physical science. He abused, and very properly, the miserably one-sided education

given not only in the board schools for the artisan, but in the great public schools where the rich send their sons; and quoted with unconcealed delight the criticism of the old Scotch woman, who, feeling dissatisfied with her son's conduct, said: "Sin' ever he gaed t' the schule, his eddication's been stoppit a'thegither."

Dr. Clifford Allbutt's Address in Medicine was also a brilliant oration. Comparative Pathology is almost a new subject, though it has more than one journal; but Dr. Allbutt already wants to go a step further, and invites the profession to make use of it in the classification of diseases. The study of symptoms and morbid anatomy alone, he urged, could not supply a satisfactory basis for a rational necrology. We must look to the relation of the various diseases of man to each other, and of groups of diseases to other groups. Further, we must compare disease in man with disease in other animals. The geographical distribution, the history or distribution in time, the natural history of disease, the operation of the hereditary principle, and the results of experiment, each and all demanded separate but co-ordinated investigation.

There are two rival schools of medicine—more in reality, but two of importance—in Glasgow. Of the younger aggressive school, Dr. William Macewen was put forward as the champion. He had a veritable triumph; such an ovation as none of the oldest frequenters of the Association meetings can remember.

SURGERY OF THE BRAIN.

Earliest Operations.—The fourth general address, delivered on Thursday morning by Dr. William Macewen, Lecturer on Surgery, Glasgow Royal Infirmary, on the surgery of the brain and spinal cord, was perhaps the most important of all. It showed that this brilliant surgeon has had a longer and more extensive acquaintance with this department of surgery than probably any other living surgeon. In some preliminary observations he observed that the two formidable barriers which had so long delayed the advance of surgery in this direction were (1) the fact that the majority of intracranial operations were attended by inflamma-

tory action which was commonly fatal; and (2) the fact that the brain was a dark continent in which neither path nor guide existed. The development of antiseptic surgery had removed the one barrier, and the growth of a knowledge of cerebral localization, founded on experiment and pathological observation, had cast down the other. He related a series of cases treated by him, dating from 1879 to 1883, in which the modern knowledge and resources had been applied to the treatment of intracranial lesions.

Statistical Summary.—Of 21 cases (exclusive of fractures of the skull or other immediate effects of injury) in which he had operated, there had been three deaths and eighteen recoveries. Of those who died, all were moribund when operated on, two from abscess of brain, in one of which the pus had already burst into the lateral ventricles, and in the other suppurative thrombo-

sphere extensive softening at the seat of contusion and œdema of the brain. Of the eighteen who recovered, sixteen were still in good health, and most of them were at work. One died eight years after the operation, from Bright's disease, being, in the interval, quite well and able to work. The second case died forty-seven days after the operation, from tubercular enteritis; but the abscess had healed.

He gave at some length the details of ten cases; the first seven operated on before the famous case of Dr. Hughes Bennett and Mr. Godlee in 1883, and quoted three others: all ten illustrating various points in diagnosis. These ten cases I have put together in the following table:

A Case of Psychological Blindness.—Dr. Macewen next related a most remarkable case of mania with homicidal impulses, coming on after injury to the head. The fact that there was com-

NO.	DATE.	NATURE OF ASE.	DIAGNOSIS BASED ON.	OPERATION.	RESULT.
1	1876	Abscess of base of second and third frontal convolutions (left).	Right sided convulsions, followed by temporary hemiplegia and aphasia.	Refused.	Death.
2	1879	Traumatic, sub-dural hemorrhage over lower part of fissure of Rolando (right).	Left-sided convulsions, beginning in face, followed by hemiparesis.	Trephining; evacuation of 3 ozs. of blood beneath dura.	Complete recovery.
3	1879	Tumor of dura mater pressing on frontal lobe (left).	Recurrent orbital tumor (left). Fixed pupil (left); hebetude; right-sided convulsions, beginning in face and arm.	Trephining; excision of tumor and membranes.	Complete recovery; no recurrence; death eight years afterwards, from Bright's disease.
4	1881	Encysted cerebral abscess of left temporo-sphenoidal lobe; secondary acute abscess; total destruction of lobe; abscess ruptured into lateral ventricles.	Aphasia; paralysis of left third and C. N., and of right brachial and facial muscles, followed by ventricular symptoms.	Trephining; evacuation of several ozs. of pus. Patient in extremis.	Death, from exhaustion and the extensive encephalitis.
5	1883	Traumatic hemorrhage over base of ascending convolutions.	Motor symptoms only.	Trephining; evacuation of blood.	Complete and permanent recovery.
6	1883	Syphilitic tumor of paracentral lobule and plastic effusion at centre of ascending convolution.	Brachio-crural monoplegia.	Removal of tumor and effusion.	Rapid recovery; leaving slight hemiplegia.
7	1883	Local lesion of motor cortex of middle portion of ascending convolution (extravasation with surrounding encephalitis).	Brachial monoplegia	Evacuation.	Complete and permanent recovery.
8		Old traumatism. Cyst in lower part of ascending frontal.	Convulsions of tongue, face and platysma (right) followed by paralysis.	Removal of cyst.	Complete and permanent recovery.
9		Tubercular tumor in upper part of ascending parietal.	Convulsions; protospasm of hallux preceded by sensory impressions and followed by paralysis.	Trephining; incision of gray matter tumor shelled out from white.	Recovery; trephination of right side for one week; no fits since; 1 year.
10		Traumatism. Sub-dural cyst pressing on, and bony spicula penetrating, motor convolutions.	Brachio-crural monoplegia with rigidity; removal of cyst and spicula.	Removal of cyst; replacement of spicula.	Recovery, with slight brachio-crural paresis.

sis of the lateral sinus had previously led to pyæmia. In the third case there was a large subdural cyst on the one hemisphere, and in the other hemi-

plete psychical blindness for a fortnight after the accident—i.e., that, though he could see, what he saw conveyed no idea to his mind—afforded a clue as to

the seat of the lesion. The angular gyrus was exposed, and a portion of the internal table of the skull, which had been detached and was pressing on the posterior portion of the suprameningeal convolution and the anterior portion of the angular gyrus, was replaced in its proper position. He was greatly relieved, the homicidal tendency disappeared, and he was able to work. Dr. Macewen also mentioned a case presenting a very complex series of symptoms, in which a lesion in the temporo-sphenoidal lobe was diagnosed. In the medullary substance of this lobe an abscess was found, and three ounces of pus evacuated. The wound healed under a single dressing.

Prognosis as to Paralysis.—These cases and those already recorded by Mr. Victor Horsley may be fairly taken to prove that, with antiseptic precautions, operations may be performed within the cranium with as little fear as within the peritoneum; and where there is reason to suspect an abscess, "none," said Dr. Macewen, "can hesitate to evacuate the pus." In dealing with epilepsy due to cicatrix or neoplasm, the question is more serious. The removal of a large wedge of brain was not free from immediate danger to life, and, even at the best, hemiplegia must permanently remain. Dr. Macewen related one case in which, after exposing a tumor in the motor area, he came to the conclusion that hemiplegia of a much more pronounced character than already existed would be produced by its excision. He therefore ligatured all the vessels running into the tumor from the surface, in the hope of checking the growth of the tumor. The patient recovered, and the fits had become less severe.

Re-implantation of Bone.—Dr. Macewen strongly advocated the re-implantation of bone removed by the trephine, or comminuted by accident. He carefully preserves all particles of bone, renders them aseptic, divides them into minute fragments and re-implants them. If suppuration can be avoided, the fragments will grow, and the continuity of the osseous wall will be preserved.

SURGERY OF THE SPINAL CORD.

Dr. Macewen said that operations for

the relief of symptoms due to pressure on the spinal cord had been unsparingly condemned on three grounds: (1) that they were difficult, prolonged and attended by profuse hemorrhage; (2) that the operation could hardly benefit the patient; and (3) that no one had been able to present a successful case.

Method of Operating.—The first of these objections might be obviated by careful operation. An incision is made on the tips of the spinous processes, the tendinous connections severed, and the soft parts shelled off with periosteal elevators. Hemorrhage is trifling, and the whole operation, with suitable instruments, though demanding care, was easy to perform.

Prognosis.—Six cases were related in which the posterior arches of the vertebræ were removed. Five of these were cases of angular curvature with ankylosis of vertebræ. Three recovered and were able to walk; having previously been in a condition of complete and hopeless paraplegia. Two died; one a week after operation, the other from general tuberculosis some months after operation. From these two fatal cases Dr. Macewen deduced the lesson that no case should be deemed fit for operation in which the temperature did not run an even, regular and continuous afebrile course. The sixth case was an instance of complete paraplegia due to fracture and depression of the twelfth dorsal vertebræ. The patient eventually made a good recovery, and is now able to walk about with ease. These six cases, the first of which was operated on in 1882, completely disposed of the second and third objections mentioned above.

THE GASEOUS CONSTITUENTS OF THE BLOOD.

The fifth and last general address was delivered on Friday by Professor J. G. McKendrick. The subject was the gaseous constituents of the blood in relation to some of the problems of respiration. He gave a historical account of the growth of knowledge on this head. In dealing with latter day experiments, he laid special stress on those of Paul Bert, which showed that the amount of oxygen absorbed by the blood under increased atmospheric

pressure was very little greater than that absorbed under ordinary conditions.

Effects of Increased Atmospheric Pressure.—The amounts absorbed were, under one atmosphere, 20 per cent.; under two atmospheres, 20.9 per cent.; under four atmospheres, 22.2 per cent.; under six atmospheres, 22.9 per cent.; under eight atmospheres, 23.2 per cent.; under ten atmospheres, 23.4 per cent. The practical deduction made from this was that, in the treatment of disease, it is useless to cause patients to breathe an atmosphere richer in oxygen than ordinary air; because, at ordinary pressure, no more oxygen can be caused to enter the blood, and if it be desired to hyperoxygenate the blood, this can only be done by breathing oxygen under a pressure of three or four atmospheres, in a chamber in which the body of the patient is subjected to the same pressure. As a matter of therapeutic fact, however, I suppose that nobody ever wants to hyperoxygenate the blood; but rather, when the blood is in a condition of deficient oxygenation from failure of lungs or heart, to present to the corpuscles eager for oxygen an atmosphere containing an abnormally large proportion of that gas. A more valuable practical lesson from Paul Bert's experiments has seemed to be that, in giving compressed air baths, it is not of much use *quâ* aeration, to attempt to use such high pressures as have been proposed.

Some Curious Calculations.—Professor McKendrick, taking the number of red corpuscles in each cubic millimetre of blood to be five millions, and assuming that each corpuscle had a superficial area of .000128 square millimetre, calculated that the superficial area of all the corpuscles in the blood of an ordinary man would be about 2880 square millimetres (3151 square yards). This curious calculation helps to impress on the mind the enormous surface for the absorption of oxygen presented by the red corpuscles. Another curious calculation was that the total amount of iron in the blood of an ordinary man was 2.48 grammes (39 grains). As tinct. ferri perchlor. (B. P.), μ xxv contains gr. j of pure iron, not many doses are required to introduce into the

body as much iron as exists in the blood.

In the Section of Pathology an important paper was read by Professor Roy, F.R.S., of Cambridge, on a research conducted by him in the Cambridge Pathological Laboratory, with the co-operation of Mr. Adami, into the causes of the failure of the heart from overstrain. Professor Roy observed that it had been long known that a relation existed between the work of the heart and its diseases. Prolonged muscular exertion, like Bright's disease and syphilis, produced high arterial tension. The same result was produced by valvular disease. He described the methods he had employed to raise arterial tension experimentally by compressing the ascending aorta in dogs, and the method of measuring the quantity of blood expelled by the heart at each systole by the plethysmograph. A rise of arterial pressure did not change the amount of blood thrown out by the heart; but diastolic expansion of the heart was more considerable than under ordinary circumstances. When extreme, this produced functional incompetence. Hypertrophy of the heart in plethora might occur without increase of the arterial pressure. Failure of the heart only took place when incompetence of auriculo-ventricular valves, from dilatation of orifices, made it impossible for the heart to throw into the arteries all the blood which reached it by the veins. Increase of arterial pressure, produced by compression of the aorta as described above, produced very interesting anatomical changes in the valves. In six cases out of seven, Dr. Roy had found œdematous changes in the mitral and aortic valves, and also to a less extent of the tricuspid. In the aortic valves these changes were most marked along the semilunar flaps; in the mitral and tricuspid, at the point where the valves come into apposition during systole. The seat of the œdema corresponds exactly with the seat of fibrous thickening observed in Bright's disease and other conditions in which an increase of arterial tension has long continued. The œdema is due to the distension of lymphatics and vascular congestion. There is also, at the same

points, shedding of epithelium, which may account for the deposit of fibrin observed at these points, and for their being the seat of election of endocarditis verrucosa.

It is impossible for one hand to give anything like an adequate account of the proceedings of the twelve sections. The section on diseases of children, which has only been constituted once before, some four or five years ago, was a great success. Dr. Jacobi introduced a discussion on diphtheria, in which Prof. Ranke, Mr. R. W. Parker and Dr. Wm. Macewen took part. There was also a spirited discussion on rickets in this section.

The main topic of discussion in the surgery section was empyema and abscess of the lung, introduced by Mr. T. P. Veale, of Leeds; in the medicine section, syphilitic disease of the nervous system, introduced by the President of the section, Dr. McCall Anderson.

The dinner was a success. The speech of the Rev. Donald McLeod, D.D., proposing the Association, was long and elaborate, but enlivened by a pleasant vein of irony. This was well enough; but Principal Cain, D.D., was also terribly solemn, and Mr. Fitzgibbon, the President of the College of Surgeons, talked a very long time—for twenty-five minutes, it is said—about the grievances of the army medical officers, until the whole assembly was bored to extinction.

DAWSON WILLIAMS.

REVIEWS AND BOOK NOTICES.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES. Embracing the entire range of Scientific and Practical Medicine and Allied Science. Volume VI, by various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, M.D. Complete in eight volumes. Price per volume, muslin, \$6.00; sheep, \$7.00; half morocco, \$8.00. New York: William Wood & Co.

The various articles in the present volume of this magnificent work of reference fully sustain the reputation won by those which had previously appeared. The essays are remarkably

compendious and comprehensive, and are freely illustrated. Their style is judicial, but as they are from the pens of writers who are especially known in connection with the various departments, and whose right to speak *ex cathedra* will not be disputed, the fact that the teachings are positive, even dogmatic, will render the work more valuable to the general practitioner. As the various articles are signed by the name of each contributor, the authority of the statement is known; very frequently a pretty full bibliography is added to the long articles, so as to indicate the original source of the facts for those who are anxious to investigate them further. In this volume the articles on Pregnancy (Theophilus Parvin), Professional Neuroses (C. L. Dana), Pulse (C. Baumgarten), Quarantine (Charles Smart), Rabies (Albert N. Blodgett), Reptiles (H. C. Yarrow), Resection (Leroy M. Yale), Respiration (S. H. Gage), Sanitary Inspection (Wm. H. Ford), Duties of Sanitary Inspectors (F. N. Owen), Scarlet Fever (I. E. Atkinson), Schizomycetes (Meade Bolton), Secretion (W. H. Howell), Sewage (Wm. Oldright), Spectacles (John Green), Sphygmograph (Baumgarten), Syphilis (J. Nevins Hyde), and that upon the Teeth (Wm. Henry Potter), attract special attention by their completeness. We also notice the admirable work in the numerous short articles on *Materia Medica*, by W. P. Bolles; *Therapeutics*, by Edward Curtis, and on *Skin Diseases*, by Van Harlingen. We heartily commend this book to our readers for their critical examination.

ENCYCLOPEDIA OF OBSTETRICS AND GYNÆCOLOGY. In 12 volumes. 8vo, cloth. William Wood & Co. 1887.

The activity of workers in this department of medical science can be judged not only by the number of books that have appeared of late, but also by the quality of the material, which reveals great industry and technical skill. The editor of this encyclopædia, Dr. Egbert H. Grandin, of New York, has shown much skill in preparing the matter for the press, and by various judicious annotations; but especially by his valuable contribution upon

Electricity in Gynecological Practice, which is contained in Vol. V. The various contributors to the encyclopedia are Charpentier (Obstetrics, 4 vols.), Hegar and Kaltenbach (General and Operative Gynecology, 2 vols.), R. Chrobak (Gynecological Diagnosis and Therapeutics), R. Olshausen (Diseases of the Ovaries), Billroth (Diseases of Female Mammary Glands), Gusserow (New Growths of the Uterus), F. Winckel (Diseases of Urethra and Bladder), A. Breisky (Diseases of Vagina), P. Müller (Sterility), E. Berner (The Menopause), L. Bandl (Diseases of the Tubes, etc., Extra Uterine Pregnancy), and P. Zweifel (Diseases of the Genitals, Lacerations of the Perineum). The several works are freely illustrated, and are valuable additions to the physician's library.

ABDOMINAL SURGERY. By HAL C. WYMAN, M.S., M.D. Published by Geo. S. Davis, Detroit, Mich. Price 25 cts.

This is the latest number of the Physicians' Leisure Library. It details the author's experiments, made upon dogs and other animals, for the purpose of studying abdominal surgery.

The anti-vivisectionist will find in these pages plenty of material to fortify his position; the critic who seeks faults alone will also find scope for his pernicious activity, in the careless manner in which the book is written, the rhetorical lapses, the lack of dignity in thought and expression, and in the proving, which is not up to the standard of Mr. Davis' publications.

Medicine is a serious affair; the profession is honorable in the eyes of men, and it is proper that works written for the edification of brother physicians should be couched in suitable phraseology. Still there is a certain sense of relief, to the reviewer at least, when he meets a work which departs from the general uniformity. While the term "belly rippers" is not very elegant, there is no denying that it is graphic, and that it strikes the consciousness with a little of the rude vigor of the great West.

But these are non-essentials; and the true question is, Has the author given us anything of value in his book? He details numerous experiments upon dogs,

from which he makes various deductions upon points to be observed in operations upon the human subject. The brutes are tortured in a way which must be repulsive to every humane man; but we cannot deny that we believe Dr. Wyman is a better surgeon for having done this thing, and that we would have more confidence in his ability to operate successfully than if he had not.

One of the most valuable hints to be found in the book is that recommending the excision of a wedge-shaped piece of the mesentery when the corresponding portion of the intestine is removed. This permitted much better coaptation of the intestines, and the hemorrhage was more readily controlled, fewer vessels requiring ligation. We sincerely trust that the horrid cruelties depicted in these experiments may bear fruit in the relief of human sufferings and the saving of human lives. Otherwise they are inexcusable.

PAMPHLETS.

ANTIPYRINE. By Benjamin Marshall, M.D., San Francisco, Cal.

THE ISCHIATIC CRUTCH. By A. B. Judson, M.D., New York.

CONSERVATISM IN GYNÆCOLOGY. By A. Reeves Jackson, A.M., M.D.

REPORT FOR THE YEARS 1886-7 AND 1887-8 OF THE OBSERVATORY OF YALE UNIVERSITY.

THERAPEUTICS OUGHT TO BECOME A SCIENCE. By William Sharp, M.D., F.R.S., London.

TREATMENT OF PENETRATING GUNSHOT WOUNDS OF THE CRANIUM. By Joseph D. Bryant, M.D.

ON EXERCISE FOR PREVENTION AND CURE OF DEFORMITIES. By A. H. P. Leuf, M.D., Philadelphia.

STRICTURE OF THE URETHRA: URETHROTOMY UNDER COCAINE ANÆSTHESIA. By Henry J. Reynolds, M.D.

A NEW METHOD IN THE TREATMENT OF THE VEGETABLE PARASITIC DISEASES OF THE SKIN. By Henry J. Reynolds, M.D.

THE ORTHOPEDIC TREATMENT OF PARALYSIS OF THE ANTERIOR MUSCLES OF THE THIGH. By A. B. Judson, M.D., New York.

THE HISTORY OF ABDOMINAL SECTION IN ALBANY, WITH A REPORT OF SEVENTY-FIVE CASES. By Albert Van der Veer, M.D., Surgeon.

CRIMINAL ABORTION, OR FETICIDE. By H. C. Ghent, M.D., Belton, Texas. Reprint from the Transactions of the Texas State Medical Association, Galveston, 1888.

THE TRADITIONAL ERRORS OF SURGERY. The Presidential Address at the Thirty-ninth Annual Session of the Medical Society of the State of Pennsylvania. By R. J. Levis, A.M., M.D.

ABSTRACTS.

THE STORAGE OF LIFE AS A SANITARY STUDY.¹—The problem was shortly stated as follows: Certain proofs of the power of the human body to lay or store up life to a prolonged period are admitted. What are the conditions which favor such storage, and how can we promote such conditions?

The conditions were stated in the following order: (1) Hereditary qualifications. (2) The virtue of continency. (3) Maintenance of balance of bodily functions. (4) Perfect temperance. (5) Purity from implanted or acquired diseases.

Many details of the effects of heredity were supplied, amongst others that if the ages at death, from natural causes, were obtainable of the parental lives of a man or woman through three generations, the average of their ages—the sum total of them divided by six—might be accepted as the commercial value of the last life. To this rule there were some variations, to the effect that taking the age of sixty as a medium point, the value of the last life was less under that point, greater above it. From this topic the lecturer passed to the study of temperaments as connected with life storage, showing that the bilious and sanguine temperaments are the best for long life; the nervous and the lymphatic the worst.

In treating on the virtue of continency as an aid to long life, Dr. Richardson's argument went completely against

the grosser advocacy of the Malthusian doctrine. He maintained that under a proper sanitary and healthful régime there would be no danger of, nor trouble from, over-population; that all artificial means to suppress population, even if they succeeded in respect to reduction of numbers, would lead to the development of a feeble race—a process of bad sanitation. The work of the sanitarian, as it is now in progress, is the best calculated to ensure this success, without recourse to any extreme or doubtful method.

In the third division of his discourse, the speaker dwelt on the sustainment of balance of the working organs of the body as a means of keeping up the storage of life. A body comparatively weak, but with all the organic structures in good balance, is calculated to live longer than a finely made body with one even of its vital organs enfeebled or diseased. Hence the importance of proper and scientific training of both mind and body, training that should become part of the education of every child in every school in the land.

The fourth topic considered brought under consideration what the author called perfect or all-round temperance; temperance in speech, action, thought, as well as in matters of eating and drinking. We may consider that whatever quickens the action of the heart beyond its natural speed and force, is a stimulant; and, in proportion to the unnatural tax inflicted by it is a reduction of the storage of life. This was illustrated from many points of view, the prime lesson advanced being that every luxurious mode of life, like every fast mode, is of a certainty a shortener of the natural term, even in those who, by the advantage of belonging to a long-lived stock, are naturally fitted for good storage. All luxuries, therefore, are bad for long life; and the luxurious use of stimulants of every kind is detrimental, the alcoholic stimulants being without concealment the most injurious.

The prevention of the damaging diseases formed the last subject of study. Here the art of the sanitarian comes into most effective play; and whoever in the sanitary line of research helps to remove these impediments by getting

¹ Abstract of an address delivered by Dr. B. W. Richardson before the Sanitary Institute of Great Britain.

at and removing their causes, is one amongst the truest friends of humanity, and one who is assisting especially in the storage of life, which must be laid up in the first and retained in the last stage.

—*Med. Press.*

OVARIOTOMY.—At the last meeting of the Kentucky State Medical Society, Dr. Wathen outlined very clearly his position upon this subject—one which commends itself to every thoughtful man. He referred especially to cutting open the abdomen to remove healthy tubes and ovaries, because there were a few vague neurotic symptoms which had not yielded to an imperfect treatment; or to cure epilepsy which had no direct or positive relation with the generative organs; the destruction of the distinctive organs of a woman to satisfy an imperfect diagnosis and a faulty pathology, or the ambition of the operator; the removal of an important part of woman's machinery, which regulated the symmetrical and harmonious action of the various organs of her body; a woman's life, as it had been expressed by Dr. Jackson and Dr. Bigelow, poised between heaven and earth, without the possibility of doing any good; a woman's life sacrificed on the operating-table. He doubted whether there was one case in a hundred of removal of healthy ovaries or tubes that was a justifiable operation. The removal of healthy ovaries or tubes to cure epilepsy or vague nervous diseases not referable to irritation of the pelvic organs was not more consistent than the castration of a man for similar purposes; but who would have the hardihood to do the latter under such conditions? The statistics of these operations were faulty. The successful operations were usually reported too soon to judge of a permanent improvement; the patient might improve for a while, but then relapse into a worse condition than existed before the operation. It was well known to surgeons that many persons felt temporarily improved from the mental shock or impression of a surgical operation. These reports were not valuable except in cases where the condition of the patient had been carefully noted for several years after the operation, and all the facts honestly related. Dr.

Robert Battey, in a report to the American Gynecological Society, in September, 1887, of fifty-four cases of "Battey's operation" which ended in recovery, had shown conclusively the worthless character of reports made just subsequent to the operation; in very few cases were there immediate positive changes, and the majority of patients passed through various climacteric disturbances, and the abnormal symptoms did not disappear till from one to five years. In the reports of the late Professor Schroeder, of Berlin, it appeared that some of the patients who had at first apparently been benefited soon retrograded into a condition as bad as or worse than existed before the operation. Hegar had not met with that success that his early experience had indicated. But this surgical craze was not confined to cutting out the ovaries and tubes, but extended to the abdominal or vaginal hysterectomy for uterine tumors or malignant disease of the uterus. These operations were the most heroic and dangerous in surgery, and should never be performed until other less dangerous means of treatment had been exhausted, and one was satisfied that the removal of the uterus and its appendages would give the woman the best chances of recovery. The speaker did not believe that hysterectomy for carcinoma or sarcoma of the uterus was often a justifiable operation, and certainly it was not if there was any involvement of the peritoneum or pelvic tissues or a discernible infection of the system. His friend, Professor August Martin, of Berlin, was probably the best authority on the success of this operation; and, while some of his results were apparently encouraging, the majority were not so. Dr. A. Reeves Jackson, of Chicago, had written a great deal to show that hysterectomy for cancer had destroyed many years of valuable life. Better results had followed hysterectomy for fibromata of the uterus; and, if the patient recovered from the immediate effects of the operation, she was usually much improved or entirely cured. Dr. Keith, as an authority in this operation, had no superior, and probably no equal, and, while he had formerly operated often, he seldom did so now, and maintained that no one was justified in performing

hysterectomy for fibromata until he had exhausted other valuable means of treatment, and especially carefully used electrolysis after the manner of Apostoli.

—*N. Y. Med. Journal.*

TREATMENT OF YELLOW FEVER.—In the *New Orleans Medical and Surgical Journal*, Dr. R. H. Day contributes a paper upon yellow fever, from which the following abstract is taken :

First in importance he places the duty of reassuring the patient, and increasing his will-power. "Yes, you can recover if you will be a man and dismiss these hurtful and foolish fears." If the skin be hot or dry, he recommends a hot mustard foot-bath, with warm drinks; care being taken not to push the sweating too far.

If the stomach be full, an emetic of warm water is given. After the operation of this, mustard is applied over the stomach, and small doses of mint or of morphine with soda given, while the face is frequently sponged with spirituous lotions. If a cathartic be needed, he objects strongly to castor oil, preferring enemata or senna and magnesia.

When the attack is ushered in by violent cerebral symptoms he bleeds freely until the brain is relieved. "To trust to revulsives and sedatives in such extreme cases were certain death."

For the septic condition of the system he prescribes a scruple of calomel and 30 to 40 grains of quinine, divided into four parts; one to be taken every four hours. This is given in the hot stage, as early as possible, unless cerebral complications oppose the use of quinine.

Nausea calls for a blister to the epigastrium, with ice or cold water moderately; sometimes a little creosote with morphine, soda and mint water.

Morphine or Dover's powder may be needed for insomnia.

Cerebral hyperemia occurring later, calls for the bromides, with cold to the head. In one case the patient was saved by opening the temporal artery.

For black vomit or hemorrhages he uses the tincture of iron, in teaspoonful doses, perhaps, with ice and champagne or cognac.

Suppression of urine he treats by

cupping over the kidneys, and stimulating liniments with digitalis.

The mortality under this treatment was from 3 to 3½ per cent.

He values the curative powers of quinine highly in non-malarial fevers, basing his opinion on an experience of over fifty-six years of active practice.

COBALTO NITRITE OF POTASSIUM.—ROOSEVELT has made some experiments (*N. Y. Med. Journal*) upon this substance as compared with trinitrine. In one case, where the two were given alternately, the effect of the cobalt salt was more lasting as regarded relief from dyspnoea (a case of uræmia), and it produced no fulness, throbbing or pain in the head, while nitro-glycerine caused a great deal.

In another case, neither gave relief, but vomiting followed the ingestion of the cobalt.

In the third case the salt gave absolute relief and produced no vomiting. A fourth case presented head symptoms but no dyspnoea; and while there was an improvement following the use of cobalto-nitrite, it is uncertain whether the medicine was to receive the credit.

The dyspnoea of emphysema was completely relieved in one case, without the headache which followed the use of trinitrine.

In dyspnoea from valvular disease, no good resulted.

The writer thinks the salt worthy of trial in all cases in which the nitrites are now used.

METHYLENE.—Buxton writes to the *British Med. Journal* to show that the methylene praised by Sir Spencer Wells is composed of four parts of methylated chloroform and one of methylic alcohol. It should never be given in higher percentage than 4 to 100 volumes of air. True bichloride of methylene is not an anæsthetic, but a deadly and rapid poison. As Dr. Buxton is anæsthetist to University College Hospital, his opinion is deserving of high consideration. The dangers of methylene (so called) are the same as those of chloroform, and to be guarded against in the same manner. At any rate, in choosing between two anæsthetics, it is to be remembered that the one with which one is most familiar is apt to be the safest in his hands.

TREATMENT OF DIPHThERIA.—RAYE gives the details of his treatment in 34 cases of diphtheria. All these recovered, though one-fourth of them were very severe. If laryngeal breathing be present, he applies large very hot sponges to the neck, changing as they cool. The throat is sprayed with sulphurous acid, ss to 3j ; syrup, 3ij to 3iv ; water to 3vj or 3vii . This is used for four minutes every one to four hours. A drachm of sulphurous acid, with or without quinine or chlorate of potash, is given at intervals of one-half to four hours. Carbolic steam is kept about the patient. Plenty of liquid food is given, with wine, bark or brandy, as needed. When the acute stage is over, iron, quinine and cod liver oil, or strychnine, are given. For children, about three years old, the dose of sulphurous acid is reduced to about three to six drops; though it is difficult to be exact, owing to the wretched manner in which the prescription is put together.

The results are good, and we are inclined to believe that sulphurous acid is a valuable antiseptic in diphtheria; perhaps ranking next to nascent chlorine.

RESORCIN IN SUMMER COMPLAINT.—FLIESBURG contributes a paper to the *N. W. Lancet* upon the use of antiseptics in the summer diarrhoeas of children. He enumerates calomel, carbolic acid, salicylic acid, naphthalin, thymol, resorcin, acids and terpene.

Of these he prefers resorcin, considering it *the* antiseptic, *par excellence*, in all diarrhoeal discharges, not only of childhood, but of adult life. He gives the following formulas:

- R Resorcini.....0.05
 Saach. lactis.....0.20
 M. S.—To be taken every two or three hours.
 R Resorcini.....0.10
 Bismuth. subnit.....0.20
 M. S.—Every three or four hours.
 R Resorcini.....2.00
 Aq. rosarum,
 Syrupi.....āā.....30.00
 M. S.— 3j every one to three hours.
 The dose of resorcin varies from three to fifteen centigrammes, according to age.

CAFFEINE SUBCUTANEOUSLY.—

- R Sodii benzoat.....gr. xlv
 Caffeinæ.....gr. xxx
 Aquæ destill..... 3 iss
 M. S.—For injections.

—Huchard.

ON THE LOCAL TREATMENT OF DYSENTERY.—Surgeon-Major DOBIE writes to the *Lancet* in praise of enemata of nitrate of silver. "When the stools are frequent, consisting of flakes of mucus, stained with blood, and the patient is suffering torments from straining, then it is that the nitrate of silver enema gives an extraordinary amount of relief." He recommends ten grains of nitrate, with six ounces of water, for each enema. It matters little whether the enema is retained or not. It may be repeated thrice daily, if needed. Acute and chronic cases are equally amenable to this treatment.

The author does not state at what temperature the enema is given, but as he writes from an experience obtained in India, it is probable that the water he used was warm.

OINTMENT BASES.—If a penetrating ointment base is desired, as in acne, psoriasis, certain forms of eczema, alopecia, etc., the best base is lard, suet, or lanolin, or a mixture of two or more of these. If protection and a moderate amount of penetration and softening are desired, as often in subacute conditions, then cold cream, or any of the above, mixed with petrolatum, may be prescribed. On the other hand, if simple protection is aimed at, as in zoster, pemphigoid diseases, burns, etc., then petrolatum, unguentum diachyli, alone or mixed with cold cream or lard, may be employed. If it is desired to emphasize the action of the remedy incorporated, and at the same time employ a base active in itself, as in thickened eczematous patches, in collosities, sluggish forms of acne, and the like, then recourse may be had to mollin and sapoviridis. —STELWAGON, *Phila. Clinical Society*.

TREATMENT OF YELLOW FEVER.—Major Sternberg recommends the following:

- R Sodii bicarbonatis.....gr. cl
 Hydrarg. chlor. corros.....gr. $\frac{1}{5}$
 Aquæ.....O ij
 M. S.—About $1\frac{1}{4}$ oz. to be given ice cold, every hour.

Twelve cases treated with this formula recovered; of eight cases treated in the same institution by other methods, five died.

—Therap. Gazette.

CATARRHAL JAUNDICE.—KITTRELL reports in the *N. Y. Med. Record* five cases of jaundice successfully treated by the administration of drachm doses of soda phosphate, *ter in die*, and the external application of dilute nitromuriatic acid over the liver.

The treatment is not new, the use of the acid locally being an old Navy expedient; but it is often efficient.

APPENRODT warmly commends massage in the treatment of chronic leg-ulcers. The limb is rendered aseptic, then light effleurage is made below the knee, reaching gradually downwards; using light pressure.

The appearance of lymph exudation about the ulcer is the first good omen.

The best material to employ in massage is lanolin; which is also used as a dressing after the massage.

The treatment must be continued long after the cure, to prevent relapses.

The limb should be used freely during the treatment.—*Brit. Med. Jour.*

FOR GASTRODYNIA.—Insist upon a sufficient supply of good, nutritious food being taken, and if necessary use the stomach-pump.

R Cocainæ hydrochloratis. . . . gr. 1-12
S.—To be given every hour, before food.

R Ferri sulphatis. gr. ij
Acidi sulphurici. ℥ xv
Magnesiæ sulphatis. gr. xl
Aque menthæ pip. f 3 j

M. Ft. ut Sig.—Thrice daily. Light, solid food every hour, not exceeding two ounces. No fluids. No vegetables or fruit. Ice to relieve thirst.

—SAUNDBY, in *Prov. Med. Jour.*

DANGER OF FREE DRINKING IN CARDIAC WEAKNESS.—BARR, in the *Provincial Medical Journal*, calls attention to the necessity for limiting the imbibition of fluids in cardiac weakness. When the heart is feeble, or there is a mechanical obstacle to the circulation, the fluid accumulates in the vessels, dilutes the blood, hydrates the tissues, lessens osmosis and increases the work of the heart by augmenting the mass of the blood. Every drop of liquid taken in the stomach must pass through the right heart, except the little that passes by the bowels, and all but that which is exhaled by the lungs must pass the left heart before it can be excreted.

PETER (*N. Y. Med. Jour.*) calls attention to a pulsation over the kidneys, with diminution of urine, as a symptom of Bright's disease. He urges the importance of frequent examinations of the urine in pregnancy, scarlatina and all infectious diseases. He differs from Mitchell, in advising that milk be given, with other light food, instead of the exclusive milk diet. He recommends iodide of potassium in doses limited to one gramme per day. He uses the actual cautery, applied over the kidneys, whenever pulsation is felt or albumen appears in the urine.

DIAGNOSIS OF GASTRIC AFFECTIONS.

	CANCER	ULCER	GASTRIC CATARRH	ATONIC DYSPEPSIA	GASTRODYNIA	SYMPTOMS
	Cutting Epigastrium Aft. 1 or 2 hrs.	Acute stabbing In one spot Immediately	Burning soreness Behind sternum After 2 or 3 hours	Dull, heavy Epigastrium Aft. 1 or 2 hrs.	Dull, heavy Epigastrium Immediately	Character of Pain. Locality. Incidence. Tenderness. Vomiting. Hæmatemesis. Tongue. Tumor. Age. Sex.
	Usually Usually Usually Variable Usually	Usually Usually Usually Clean None	None Often some retching None Furred None	None None None Clean None	Sometimes Usually None Clean None	Usually over 40 Usually under 30 Any age Any age Either Usually female

—SAUNDBY, in *Provincial Med. Journal*.

MISCELLANY.

THE JANITOR AHEAD.—*Philosophy is not all Nervousness.*—Dr. Garretson had concluded a lecture in which the resurrection of the body was discussed from a physiological standpoint, argument being directed to show that the astral of theosophic language is quite as much a form of matter as is the corpus of an

anatomist, and that thus it is alike philosophical to both deny and accept that man rises again. Arguments of the kind would necessarily soon perplex one unacquainted with premises on which the order of reasoning is founded. So it is not to be wondered at that one of the hearers of the lecture, the colored janitor, who is more apt to be found inside than outside the door on the occasion of these discourses, gave up and sought relief in his broom and dust brush.

"Too much for you to-night, was it, Hamilton?" asked a student passing the janitor in the hall.

"See here, boss," said the janitor, "dem was big words, and no doubt clar enuf to the boys, but what's you got to say to dis dat I hurd down to Zion t'other night:

"If a man sits down on a pin
Its sartin sure that he'll rise agin."

It is not reported what the student said.

THE SECOND TRIENNIAL SESSION of the International Congress of Hydrology and Climatology will be held at Paris, in 1889, in the early part of October. The committee of organization consists of M. E. Renou, Drs. Danjoy, de Ranse, Caulet, Fines, Japhet, Lemoine, Leudet, MM. Piche, and Poincarre, Drs. Tillot and Schlemmer.

The programme will be announced later. In the meantime, the attention of those who intend to participate is directed to the following questions:

I. HYDROLOGY.

A. Scientific.

1. Precautions to be observed in determining precisely the temperature of thermal springs.

2. Micro-organisms contained in mineral waters, and their influence on the composition and properties of these waters.

3. The influence of bacteriological discoveries upon thermal therapy.

4. Programme for teaching hydrology.

B. Medical.

1. Resources which thermal therapy affords in the treatment of diseases of the heart and blood vessels.

2. Resources which this therapy

offers in the treatment of kidney diseases.

3. Hydromineral treatment of grave utero-ovarian neuralgias;

4. of osseous and articular tuberculosis.

5. Hydromineral treatment and sea-baths for children.

6. Dry and wet stoves (technique and application).

7. Local douches in hydrotherapy.

II. CLIMATOLOGY.

1. Conditions which should rule at the institution of a meteorologic observatory.

2. Rules for the provision of time. Organization of the announcement of time in sanitary stations.

3. Climatology of different sanitary stations.

4. Comparison and classification of sanitary stations from the point of view of their climatological conditions.

5. Action of the climates of elevated regions upon diseases of the chest.

6. Action of maritime climates on tuberculous affections.

7. Programme for the teaching of climatology.

The congress will be composed of honorary and regular members, national and foreign. The regular members pay an assessment of twelve francs. Communications should be sent to the Secretary General, M. le Dr. de Ranse, at Paris, 53, avenue Montaigne, from Oct. 1 to June 1; at Nérès (Allier), from June 1 to Oct. 1.

AN ACT TO PERFECT THE QUARANTINE SERVICE OF THE UNITED STATES.

Extract from Quarantine Act of August 1, 1888.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever any person shall trespass upon the grounds belonging to any quarantine reservation, or whenever any person, master, pilot, or owner of a vessel entering any port of the United States, shall so enter in violation of section one of the act entitled "An act to prevent the introduction of contagious or infectious diseases into the United States," approved April 29, 1878, or in violation of the quarantine regulations framed under said act, such person trespassing, or such master,

pilot or other person in command of a vessel shall, upon conviction thereof, pay a fine of not more than three hundred dollars, or be sentenced to imprisonment for a period of not more than thirty days, or shall be punished by both fine and imprisonment, at the discretion of the court. And it shall be the duty of the United States Attorney in the district where the misdemeanor shall have been committed to take immediate cognizance of the offense, upon report made to him by any medical officer of the Marine Hospital Service, or by any officer of the customs service, or by any State officer acting under authority of section five of said act.

Section 2. That as soon after the passage of this act as practicable, the Secretary of the Treasury shall cause to be established, in addition to the quarantine established by the act approved March 5th, 1888, quarantine stations as follows: One at the mouth of the Delaware Bay; one near Cape Charles, at the entrance of the Chesapeake Bay; one on the Georgia coast; one at or near Key West; one in San Diego harbor; one in San Francisco harbor; and one at or near Port Townsend, at the entrance to Puget Sound; and the said quarantine stations when so established shall be conducted by the Marine Hospital Service under regulations framed in accordance with the act of April 29th, 1878. * * * *

Approved August 1, 1888.

THE N. Y. *Medical Journal* says that a person tried to bring a man out of an epileptic paroxysm by pouring cold water into his mouth. After a slight struggle, the patient sank back apparently dead, whereupon the amateur doctor became intensely anxious and placed his ear at the mouth of the patient, who immediately proceeded to chew it up.

The man with the masticated ear now leaves medical practice to the regular faculty.

QUININE WITHOUT BITTERNESS.

- R Quinin. sulphat. gr. viiss
 Acid. sulphuric. dil. q. s.
 Ess. menthæ. gtt. v
 Liq. saccharin. ʒ iiss
 Aquæ destil. q. s. ad. ʒ iij

M.

—*Revue de Thér.*

LAWSON TAIT says that the vaginitis of newly-married women is often due to the lighting up of an old gonorrhœa in the husband by over-indulgence. When the disease has not extended to the uterus, he recommends brushing the whole surface with a mixture of equal parts of glycerine and carbolic acid, followed by the use of some simple astringent pessary, as acetate of lead or sulphate of zinc.

—*Provincial Med. Journal.*

[For this condition we have long relied upon the soluble tampons containing sulpho-carbolate of zinc, introduced by Dr. W. Thornton Parker.]

TREATMENT OF DYSPEPSIA.

To relieve congestion :

- R Ammon. carb. ʒss-ʒj
 Magnes. sulphat. ʒ iij-ʒvj
 Tr. belladon. ʒj
 Tr. nucis vom. ʒj
 Tr. zingib. ʒ ij
 Sp. etheris chloric. ʒ ij
 Aq. menth. pip. ad. ʒvj

M. ft. mist.

S.—ʒss every four hours.

For flatulent colic :

- R Sp. ammon. com.
 Liq. ammon. acet. aa. ʒ iij
 Ether. chlor. ʒ ij
 Tr. zingib. ʒ ij
 Tr. belladon. ʒ j
 Aq. menth. pip. ad. ʒvj

M. ft. mist.

S.—ʒj p. r. n.

—ILLINGWORTH, in *Med. Press.*

EVIDENTLY the Germanophile is not unknown in England, since the Medical Press gets off the following: "We are confident that misleading ideas of the value of drugs can be corrected only when the profession determine to honestly publish failures and successes. Then really valuable drugs will come to be quickly recognized, and worthless ones put aside, even though they are the discoveries of Germans and the product of German manufacture."

A FATAL case of camphor poisoning is reported in the *Australian Medical Journal*. The patient was in the habit of nibbling at the drug, and carried it in her pocket. Nothing distinctive was discovered at the autopsy except a slight cerebral congestion. The quantity of camphor found in the stomach was very small.

THE *Lancet*, in its investigation of the sweating system, has found a case in which a woman receives just forty cents a week for her labor. Truly, as our London correspondent recently remarked, the purchasing power of money is greater in England than it is here. But that nothing is quite as cheap as human flesh and blood is shown by the fact that this woman's earnings scarcely paid her rent, without allowing anything for her food, clothing, etc.

THE PERFECT VAGINAL TAMPON.—According to Dr. Robert T. Morris, in the *New York Med. Record*, this consists in an elastic cylinder of wool, 1 inch by 2 to 3, covered with $\frac{1}{4}$ inch of absorbent cotton, except at one end, where the wool projects. The affair is held together by thread. The tampon is dipped into Wylie's solution (alum, 3ij; boroglyceride, 3j; glycerine, 3iij) and inserted through a Sims' speculum.

No treatment which interrupts the normal physiological processes, such as the retrograde metamorphoses of involution, the fatty transformation of the component fibres of the uterus, or the cicatrization of its internal surface by the exudation of organizable lymph, and the development of a new layer of mucous membrane, or the healing of traumatic lesions, can be justified unless positive symptoms, now well understood in science, demonstrate their necessity. FORDYCE BARKER.

VOMITING OF PREGNANCY.—DR. ROSE adds another to the interminable list of remedies for vomiting of pregnancy, by reporting good results from the use of rectal injections of carbonic acid.

—*N. Y. Med. Record.*

SULPHUR FUMIGATION IN PERTUSSIS.—MANBY, in the *Practitioner*, gives the result of this method in twenty cases. About one ounce of sulphur was burned for each cubic meter of air space. The day-room was fumigated as well as the bed-room; so that the children lived for days in an atmosphere of diluted sulphurous acid gas.

The improvement is immediate, and in no case did the cough last more than two weeks after the treatment commenced.

A CLINICAL teacher is said to have recently recommended for fistula in ano the *silk or elastic* ligature. We cannot believe that any surgeon who has really made use of both these ligatures could possibly speak of them in the same breath. No case in our professional history occasions us more self-reproach than one in which we were persuaded to use a silk ligature.

DIPHTHERIA AND COW DISEASE.—The investigation of an epidemic at Moulsham, Essex, afforded the following remarkable facts: Certain cows had suffered from an eruption on the udders; persons using this milk were affected with a modified form of diphtheria; other members of the same families, who used other milk, were not affected; and when the cows recovered their milk ceased to be injurious.

—*Lancet.*

ALOPECIA CONTAGIOUS.—The committee appointed by the Academy of Medicine in Paris, to consider the question of the contagiousness of alopecia areata, has just rendered its report. The rules enjoined upon those afflicted with this disease in the public schools, etc., could hardly be more rigorous if it were scabies which ailed the children; and indicate the conviction in the minds of the committee that the disease is contagious.

AMYLENE HYDRATE. — GIRTLER recommends the following as a hypnotic:

B Amylen. hydrat.....gr. cv
Aque dest.....3x
Syr. rubi idai.....3viiss

M. S. Half the quantity to be taken in the evening.

Or this:

B Amylen. hydrat.....gr. cv
Aq. menth. pip.....3x
Syr. rubi idai.....3viiss
Ol. menth. pip.....gtt. j

M. S. Same dose as above.

SETTIER reports two cases of incontinence of urine cured by electricity. The applications were continued for several months; some time after the bladder had recovered its tonicity.

—*British Med. Journal.*

CORROSIVE sublimate has this objection as an antiseptic—that to kill the spore you must first kill the patient.

Three-fourths of the cases of small-pox in the hospital at Nantes were contracted in the institution itself.

We say that this is a bad state of affairs, and yet here in Philadelphia we have but one hospital provided for all varieties of contagious diseases; and a person going there with scarlatina would be exposed to the danger of adding variola to his ailments.

PARALDEHYDE FOR VOMITING. — LA MOURE, in the *Albany Medical Annals*, recommends paraldehyde for the vomiting of ovarian disease and of pregnancy, and the nausea of migraine. He gives forty drops in an ounce of elixir; a teaspoonful in water every half hour. We tasted paraldehyde — once — and can only explain the above by supposing that the stomach is simply paralyzed with astonishment that such a dose should be deposited in it.

COCILLANA. — Dr. Rusby discovered this bark in Bolivia. He finds that it resembles ipecac in its action, causing emeto-catharsis, with great stimulation of the vessels and glands of the mucous membranes, which is followed by sedation. He thinks it may replace ipecac, which is scarce and dear; and that cocillana may prove useful in hay-fever and nasal catarrhs. The drug exerts its action on the naso-pulmonary mucous membrane equally well when administered by the stomach or by inhalation.

ABSENCE of epistaxis, of iliac tenderness, of tympanites, of continued high temperature, of emaciation, of the peculiar eruption, all should cause the physician to hesitate as to pronouncing the case one of typhoid fever. — ATKINSON.

A CARD FROM REED & CARNICK. — An anonymous publication in Boston, claiming to be a free lance that "neither threats nor bribes can suppress, has devoted considerable space lately to a so-called "exposé" of our preparations. The statements of this publication have been considered by us as too unscientific and absurd to merit our attention. The medical profession are competent to judge for themselves regarding the

value of our products, and chemists of the highest standing in the world have often certified to their value and reliability. Investigations of our methods of manufacture have always been courted by us, because we have never had anything to conceal from the medical profession. We, however, have thought it simple justice to relate our experience with this sheet, which we will do in the shortest manner possible.

We were advised in the May issue of this publication that they had decided to publish analyses of our preparations which were prejudicial to our interests. Not knowing anything of its character, we sent a representative to interview the proprietors and ascertain in what manner they claimed we had laid ourselves open to criticism. This was done in good faith, knowing the soundness of our position, and presuming the management of the journal was actuated by perfectly honest motives and willing to deal justice with an even hand.

To our surprise we found the publication was edited anonymously, and that the "chemist" was also acting under an assumed name. Our representative, after spending some days in inquiry, finally located the disinterested gentlemen who run the journal. Acting under our instructions, he asked for information regarding their proposed attack. The several interviews which followed resulted in an ultimatum which they cunningly insisted must be a *proposition from us* to the following effect:

First, the payment of \$2500 to the editor to cover the loss caused by suppressing the proposed article.

Second, the employment of the anonymous chemist, who was to be paid liberally to visit our laboratory and "analyze" our products, promising that, if he found we were subject to criticism, we were to have an opportunity to correct our errors; or, in other words, if the methods of conducting our business did not meet with his approval, we were to have an opportunity to change them to coincide with his views. This seems highhanded enough, and while it appears to be within the law, yet savors exceedingly of blackmail cloaked under the

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ORIGINAL ARTICLES.

THE MILITARY RED CROSS CORPS.

BY W. THORNTON PARKER, M. D. (Munich),

Late A. A. Surgeon, U. S. Army; Medical Examiner, 3d District, R. I.; Member of the St. John's Ambulance Association, England, etc., etc.

AS an auxiliary to the regular hospital corps of the army, each regiment should be provided with a regimental bearer corps, or, more properly named, a Red Cross Corps.

The regimental Red Cross Corps should be organized as follows:

One surgeon with the rank of major.

One assistant-surgeon with the rank of captain.

One assistant-surgeon with the rank of 1st lieutenant.

One Red Cross sergeant with the rank of quarter-master sergeant.

One assistant Red Cross sergeant with the rank of sergeant.

From each company, three men should be detailed as members of the Regimental Red Cross Corps.

All appointments in the Regimental Red Cross Corps should be made only after instruction and examination in first aid to the injured.

Every member of this corps, in ad-

dition to the insignia of his rank, shall wear upon his left arm the Geneva red cross upon a white band. This badge is to be worn whenever the regiment is under arms. This organization is to take the place of the old-time scratch system of employing musicians—a system which at best was a miserable apology for a practical, efficient corps of trained men. Any one who has witnessed the failure of the system which at the latest moment, and usually in the heat of battle, sought to provide stretcher bearers from the regimental musicians, will readily agree that a regularly organized Red Cross Corps is of the greatest importance; and, instead of being an extravagance and detriment by removing available fighting men, adds not only to the esprit du corps, but by prompt and intelligent service prevents confusion and preserves order and quiet in the rear, a condition of things most desirable when a regiment is engaged in line of battle. Nor need we go back to the time of war and tumult to recognize the truth of these assertions. What can be more absurd and less effective at our militia sham battles or the autumn manœuvres of the regular forces than the sight of the little group of men, undisciplined and without an idea as to the work required of them, grouped about a medical

officer—one perhaps with a brandy-bottle, another with some bandages, but all devoid of the important and necessary instruction for first aid to the injured.

The details of Red Cross men report to the regimental medical staff whenever the regiment is to take part in military manœuvres, or in actual battle. The Red Cross Corps stack their arms at the position selected for regimental medical station in the field. To each squad of three men a stretcher is given with which to collect the wounded and transport them to the regimental medical station. At this place they receive the attention of the regimental surgeons before being carried to the brigade or division medical rendezvous. At these latter stations the regular army hospital corps are stationed, and the wounded taken in charge for final disposition.

The regimental surgeons will attach to each injured man a diagnosis card, stating name, rank, company, regiment and injury. The members of the Red Cross Corps, besides carrying at least one large canteen of water, shall be provided with a suitable bag, or Red Cross case, containing triangular bandages, stimulants, etc., for the immediate treatment of the injured wherever found. The regimental medical station shall be as near the line of battle as possible, providing only for reasonable shelter from fire for the wounded.

The duties of the Red Cross Corps are primarily to search for the wounded, and to render all possible relief. They are expected to apply temporary dressings, such as the nature of the case may require, and to administer water,¹

¹ Water carts should be supplied to field hospitals and bearer companies. Simple wooden hogsheds (100 gallons) on a wheeled stand would suffice. These carts are drawn by a pair of horses. In the wars in the East skins are largely used for water carriers, and the human water carrier, or bihisti, is a conspicuous figure in every Eastern campaign. He carries water in a great skin masah borne upon the hips. He takes his place in the fighting front of the line and is often one of the most popular men attached to a company. Captain Jones of the British Army has designed a water cart consisting of a galvanized iron tank. It contains 119 gallons, and has a man-hole with cover for filling and cleansing the tank. An iron partition divides the tank within into two compart-

ments, and, when necessary, stimulants. The arms and accoutrements can be taken in charge by No. 2 of the squad, and the wounded carried carefully and as rapidly as possible to the regimental surgeons. To attend to these matters intelligently, it follows as a matter of course that they shall receive practical instruction in military first aid to the injured. A regular course of lectures should be given by one of the regimental surgeons, to which all members of the regiment should have access, and from those interested and proving themselves efficient the Red Cross Corps should be recruited.

The theoretical training should include:

1st. Outlines of anatomy of the human body, including a brief account of the osseous system and of the circulation of the blood.

2d. The different appliances used as a temporary dressing, viz.: field splints, tourniquets, bandages, and especially the *triangular* bandage and first field dressings in general.

Lastly: Practical instruction in the immediate treatment of gunshot wounds and of cases of emergency—occurring in military life—a description of ambulance and stretcher material and practical ambulance and stretcher drill.

The members of the corps should have frequent drilling in lifting and carrying the wounded, and this last instruction should be given only with some one *acting* as a wounded man. Nothing could be worse in the system of training than the mere pretence of lifting and carrying an empty stretcher.

Each drill should occupy a good hour, and should be carefully and thoroughly carried out. At times the wounded should be sought for when practicable by lantern light, receive field first aid and tourniquet, triangular bandage and temporary splint treatment and be placed upon the extemporized or regular field stretcher, com-

ments, and the partition is pierced with holes which allows the water to pass through gradually, thus breaking the rushing of the water about the wagon when the tank is partly full. There is one large tap and six small ones, thus allowing several canteens to be filled at the same time, which is of great importance when many men have to be supplied.

veyed some distance and be lifted into the ambulance. This drill should not be carried out without suitable explanation of the great importance of the system and all unnecessary haste or lack of precision should be most carefully avoided.

We will first consider the methods of constructing extemporary stretchers, and those furnished regularly by the military medical officers. The ordinary stretcher is composed of two poles, a canvas bottom and two slings, which are often absent or broken, and unfit for use. Where the regular canvas stretcher is absent extemporary stretchers must be made by the Red Cross Corps, from such materials as are usually at hand upon the battle-field.

The stretchers of the British army are the best to be found in any army of modern times, and probably the most perfect is that invented by Surgeon-Major Faris, which is in fact the English Army Regulation Stretcher. It is most solidly built, and consists of two side poles of ash, brown canvas bottom, a pillow, two self-locking traverses, which lock under the stretcher and keep it open. There are four wheels of lignum vitæ, on which the stretcher rolls into the ambulance wagon, and which act as legs when used as a camp bedstead, a use to which all army stretchers are liable. It weighs thirty-two pounds, and costs about \$15.00. This is, of course, too expensive and complicated for general use, and would be used only at brigade or division medical centres.

The improved stretchers now in use in the New York and other hospitals are especially to be recommended.¹ These stretchers each consist of three pieces of heavy canvas of equal size, the ends of which, being turned over and firmly stitched down, leave a sleeve through which poles are passed; the three pieces being placed one after another on these two parallel poles, which extend far enough beyond for handles, furnish a convenient and strong litter on which to carry the patient from the scene of accident. Two iron cross-bars, having rings to admit the poles, are

used to extend the stretcher. The canvas is divided into three pieces, for the comfort of the patient when the stretcher is taken from under him. In doing this the poles are first withdrawn, the head is raised and one piece slid out; next the pelvis and then the feet are lifted, and the other sections are in turn removed, so that, without disturbing the patient to any great extent, the orderly at the hospital can place him in bed.

Where the regular canvas stretcher is not obtainable, blankets, knapsacks, overcoats, dresscoats and trousers can, with poles or rifles, be made into excellent stretchers. The clothing-case of light canvas, invented by the author, weighs only 8½ ounces. Three of these can be readily fastened upon rifles, making an excellent stretcher for the transport of the wounded. The case is made of a strip of light canvas, four feet six inches long, and sixteen or eighteen inches wide, folded longitudinally, so that a margin of two or more inches is left along one edge for a flap. It is divided transversely into three equal compartments by two sets of stitches. The margin is buttoned over on six buttons, the buttonholes being on the flap and the buttons on the farther edge and reverse side of the case. Loops at either end enable the soldier to wear it securely at the ends without its being rolled in the blanket. The case will hold the ordinary soldier's kit, and is intended to be worn in the rolled blanket, suspended from the left shoulder, giving the right arm full play, and allowing the utmost freedom in the performance of the most important exercises in the manual of arms. The clothing-case does away with the necessity for the heavy and wearisome knapsack. Soldiers will not carry knapsacks, but the clothing-case can be carried for many days without fatigue. The loops already mentioned can be secured by a drawn cord or strap, and the rifles slipped between the folds thus formed will make a most serviceable stretcher. When the soldier reaches a

¹"Reference Hand-Book of the Medical Sciences," Vol. I, page 129.

Vide *Army and Navy Register*, Aug. 15, 1885.
 Vide *Jour. Amer. Med. Assoc'n*, Mar. 6, 1886.
 Vide "Reference Hand-Book Med. Science," Vol. III, page 722.

field or post hospital, and during transport in the ambulance, his clothing-case will provide, when folded, a most welcome and useful pillow.

Such clothing cases could be used either when filled or emptied. If used when the cases are *full*, just as good a stretcher can be made, and the effects of the soldier, his change of clothing, etc., are brought directly to the hospital.

In battles where sailors or marines take part, hammocks could be used, the old-fashioned boarding pikes making excellent poles, or flag-poles of boats or rifles could be used for the same purpose. Whenever rifles are used, the cartridges should be removed before they are safe to act as poles. In the Crimean war several fatal injuries to wounded were inflicted by neglect of this precaution.

The "Wheeled Support," or stretcher on wheels, is, under certain circumstances, a very useful method of transport; but for the confusion and hurry of the battle-field is not practical. Horse-chairs, for wounded who can sit up, are only advisable for troops on the march, and will not be considered in this monograph. The mule-litter, for transporting wounded in a recumbent position, is, for the same reason, omitted from detailed description.

Blankets can be folded and tied with strings to form with rifles a very firm stretcher. If time permits, some attempt at cross-pieces should be made. This can be done with the bayonet when nothing else presents itself for use. A common sack, with poles or rifles, will answer for an extempore stretcher.

A stretcher can be run up of saplings of sufficient strength, with cross-pieces and the body made of cloth, calico, flannel or any other like material. The cross-bits can be either tied or nailed on. Wood can be used for a bottom; but it should have a sack full of straw, hay, ferns or other soft material placed over it. A stretcher can be formed of two rifles, poles or lances, with two or three interlaced belts.

Referring once more to the clothing case already described, it has occurred to me that for Red-Cross Sergeants on the field no better case could be devised

for carrying the necessary instruments and appliances to be used in first aid. The knapsacks, bags and haversacks in use in the hospital corps of the European and American armies are clumsy and very tiresome. The constant stooping and rising positions assumed by the medical attendants in ministering to the sick are made doubly irksome by the clumsy and heavy bags and haversacks suspended by a strap which often cuts deeply into the shoulder of the wearer.¹ I have devised a case for a Red-Cross Sergeant made in the same fashion, but of different material from that used by the soldiers and sailors, who wear theirs inside the rolled blanket. This case is to be made of brown waterproof cloth secured at the right side by two strong straps. When required for use it can be quickly unslung and opened, and as quickly closed and slung into position again.

The contents are as follows:

One hypodermic needle and rubber-stoppered bottle containing Magendie's solution, morphia; one-half pound Lawton's absorbent cotton in a flat package; six woven bandages, antiseptic; six first aid triangular bandages; one case isinglass plaster; one inch tape; one package, in flat wooden box, surgeon's adhesive plaster; three sponges in waterproof bag; two tourniquets, field; two tourniquets, Esmarch; one tin box wax candles and matches, or folding lantern; one Red Cross Sergeant's dressing case.

This case will be found of great practical convenience and can be furnished at reasonable expense and much below the cost of hospital knapsack bags and haversacks already in use.

A very good field stretcher can be formed at once with three of these cases, either full or empty, secured upon two rifles; the ends of the cases being folded over the rifle-stocks, and secured beneath, with number one holding the butts of the rifles as he would hold the stretcher handles, and number three holding the muzzles.

[TO BE CONTINUED.]

¹ *Boston Med. and Surg. Journal*, March 31, 1888.

NOTES UPON CHOLERA INFANTUM.

L. HARRISON METTLER, A. M., M. D.,
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Chirurgical College, Philadelphia.

I will briefly record four of my private cases, each of which differed more or less from the others, and in each of which a slightly different line of treatment was followed. With these as a text I will endeavor to draw a few conclusions at which I have arrived in regard to this justly dreaded disease of childhood during the summer months.

Case I.—B. A., aged sixteen months; called to see patient July 10; very irritable and fretful; for the last two days had been vomiting and purging, both of which had now increased to an alarming extent; was feverish and thirsty; pulse rapid, but not particularly weak; pupils normal; skin warm; respiration slightly accelerated; beginning emaciation; hollowness about the eyes. Mother stated that the child took about three quarts of milk a day, and when not vomited that it seemed to pass almost immediately unchanged through the alimentary canal, producing loose, light, yellowish evacuations. The stools appeared much like water in which has been strewed a little yellow corn-meal. Their odor was not musty or offensive, as in typical cholera infantum. General health never very good; had a severe attack of cholera infantum the summer before. Ordered diminution in quantity of milk taken, the child to be kept in the open air as much as possible, and a powder containing calomel gr. 1-12, sodi bicarb. gr. ss, rubbed up in sugar of milk, one every hour until twelve had been taken; in case of any sudden depression, brandy, a few drops every fifteen or twenty minutes.

July 11.—Diarrhœa and vomiting continued, with an increase of fretfulness; had slept a little towards morning. In place of the calomel ordered powder containing pulv. Doveri gr. jss, and bismuth subnitrat. gr. viij; milk still to be diminished; pieces of ice held in mouth to quench thirst. In case this powder did not check diarrhœa, ordered the mother to give tr. opii camph. gtt. xv, following it in an hour or so with one or two doses of gtt. v

each until there was a decided check to the excessive discharges.

July 12.—Little improvement; irritability still marked; diarrhœa not so violent as yesterday, but still profuse; no vomiting. Ordered milk to be stopped entirely, and in place of it Carnrick's food. Stopped all former medication, and prescribed a liquid mixture containing mist. cretæ, spts. ammon. arom., tr. opii deodorat., syrup and water. With final directions recommended the child to be taken into the country, which was done that same evening. Well when last heard of.

Case II.—B. F., aged six months; child badly nourished, and when first seen by me (August 8) to whose charge it was left by family physician, Dr. C. H. Gardner, during the latter's absence from the city, was so emaciated as to give little hope of recovery either to myself or to parents. Every resource had been tried to check the excessive vomiting, colicky pains and diarrhœa. The limbs and body were little more than skin and bone. The surface cool and clammy; eyes sunken and blue; pulse slow and feeble; respiration rapid; temperature about normal. General condition stupid and comatose, save an occasional outcry from pain every fifteen or twenty minutes. Occasional twitchings of the hands. At once began my treatment by stopping all milk, and allowing only a little gluten; but even this could not be well retained by the stomach; brandy as a stimulant every fifteen to thirty minutes, *pro re nata*; and a powder containing pulv. Doveri gr. 1-3, bismuth gr. ij, sodi bicarb. gr. j. Special stress was laid upon the cod-liver oil inunctions, which I now ordered for the child for the first time. Three times a day the mother was directed to sponge the surface of the patient with lukewarm water and then holding it in the sunlight, or near an open fire-place, to gently rub about an ounce of the oil over the entire body, from the neck to the feet, the rubbing to be continued until the whole of the oil was absorbed. A spice-bag was worn continuously over the abdomen.

August 9.—A very, very slight improvement, as shown by lessened vomiting and brighter appearance about

the eyes. As the child had been previously taking Mellin's food, not successfully, however, the gluten and brandy was still continued as nutriment.

Aug. 10.—The condition about the same. Same treatment continued.

Aug. 11.—Regular physician returned and consented to continue same line of treatment. (When last heard from, which was several weeks after the above date, patient was again beginning to take hearty nourishment and was in a fair way to rapid recovery. Am convinced that the oil inunctions with cessation of all milk initiated the improvement).

Case III.—B. H., aged 19 months, girl, white, English, having arrived in this country with parents one week previous to my first visit, which was on July 16th; had never had any of the usual diseases of childhood, but, owing to having been raised on the bottle and to difficult dentition, with accompanying convulsions, child was never very healthful. Shape of the head tended toward the rachitic type, depressed on top, with prominent frontal eminences giving the appearance of the so-called "square head." This is probably inherited from the father who, by a former wife, has a child still living in England of a rickety type, according to the parents' description of him. The previous child by present wife died shortly after birth.

When first seen by me patient was weak and fretful, the fretfulness being one of the most marked features of the case; eyes heavy and dull, sunken and surrounded by dark rings; pupils not particularly abnormal; cheeks hollow and flabby; skin warm; tongue slightly coated; vomiting not very frequent; purging at least five or six times a day, stools being at first greenish, then yellowish, with a decidedly musty, offensive odor; colicky pains through the bowels; anorexia; great thirst; general feverishness; pulse rapid and full. Had been using milk diluted with lime water. Ordered cessation of all milk, and instead of it Richardson's Lactated Food prepared according to directions, and to be given regularly every half hour or so in small quantity. A powder t. i. d. containing zinci sulphocarb. gr. $\frac{1}{16}$, sodi bicarb. gr. ij;

spice bag to be worn continuously over abdomen. Ice to suck. Patient kept out-doors as much as possible.

July 17.—Was sent for about 11 A.M., and found the child much worse. Up to late last night there was improvement, but this morning fretfulness suddenly increased. Marked pain over the abdomen, judging by patient's manner. Vomiting commenced late last night, and was repeated once or twice this morning, the matter vomited being watery and yellowish in color. Refused all food, though taking it readily yesterday afternoon; pupils normal, no rolling of the head, no twitching of the muscles. Early in the morning the lower extremities, body and hands suddenly became cold and cyanosed; pulse small and weak. After soaking patient's feet in hot mustard water, mother says, coldness disappeared, followed by flushing and extreme fretfulness. Bowels continued loose; vomiting ceased.

Ordered mild sinapisms over abdomen. Gave while present a powder containing $\frac{1}{4}$ grain each of calomel and Dover's powder, which, the mother states, was vomited about fifteen minutes after I left. Had also ordered gr. x tr. opii camph., to be given every two hours so long as restlessness continued; of this only two doses were taken, both of which were quickly vomited. The following is the aunt's description of the death of the child, which occurred about 3 P.M.: A sudden change came over the patient, with general coldness of surface, particularly of the extremities; cyanosis was marked about the lips and tips of the fingers; all fretfulness ceased, and a general comatose condition supervened; respiration deepened and became more labored; eyes rolled upwards, and seemed to have lost their power of sight, for there was no power of recognition left; no convulsions; breathing slower and slower, until death occurred so quietly as to be almost imperceptible. At 3.35, when I first received the summons to attend, the child was already dead, the body being still warm, muscles relaxed, pupils normal in size. No autopsy.

Case IV.—B. L. H., age three weeks; girl; white; badly nourished, being raised upon the bottle. Saw the child

August 4, and found it as well as would be expected. Was summoned early on the morning of August 7, to find the patient comatose and cyanosed. Since yesterday morning but little nourishment was taken; more or less irritable; three greenish, watery, not very offensive stools; but in the evening considerable vomiting and purging; then slept well all night until about 5 A. M., when there was another stool of same character, but no vomiting. A decided change in child's appearance was noted at once by parents. Eyes were heavy, sunken and surrounded by bluish rings; face and hands shrunken and emaciated to a wonderful degree considering time of sickness; absence of all movement, with a general comatose condition, save now and then a spasmodic twitch of the face, indicative of internal pain; insensibility to light; general anæsthesia and coolness of skin. Such was the condition when first seen by me. Sent for Dr. Bell as consultant, and in the meantime gave gtt. v of brandy every fifteen minutes, injected two goodly sized syringefuls of clear, tepid water into the bowel, the first of which was immediately ejected with considerable fecal matter, and administered a powder containing calomel gr. 1-12, sodi bicarb. gr. $\frac{1}{4}$. Child rallied some before consultant arrived. No change in treatment. Then ordered mustard over the abdomen. About 10.30 A. M. again saw patient in consultation with Dr. Gardner. Condition much brighter, but still suffering from much pain. Further treatment: Spice-bag to abdomen; cessation of all milk; frequent sips of gum arabic water, brandy gtt. v to vj, p. r. n., calomel as above, every hour and a half, with the following prescription every four hours:

R Bismuth subnitrat..... $\overline{3j}$
Syrup simp..... $\overline{3ij}$
Mist. crete.....q. s. ad. $\overline{3j}$
M. Sig.—Fifteen to twenty drops.

At 4.30 and 8.30 P. M. still improving.

Aug. 8th. Brighter and more irritable; takes more nourishment; has had four stools, watery and green in character. Stopped calomel powders. Continued bismuth mixture with gum arabic water, beef tea; milk and water ($\frac{1}{4}$ to $\frac{2}{3}$) not oftener than three times a day. Kept in open air as much as possible.

Aug. 9.—Aug. 10th.—Still improving; treatment continued.

Aug. 11.—Stopped all medicine. For nourishment takes chiefly beef tea, a little boiled milk to which had been added the gratings of flour boiled in a bag for 4 or 5 days. Bodily inunctions of ol. morrhue, beginning with them only two or three times a week and gradually increasing in frequency until performed once or twice a day.

Aug. 13.—Last visit: well on the way to rapid recovery and perfect health.

These four cases have been selected because representing different forms of the summer complaint as it occurs in children. One was a simple enterocolitis which might easily have developed into severe cholera infantum; but which was quickly checked by appropriate treatment, and the fortunate removal of the patient into the country. Another had run its course of choleric form diarrhoea, so wasting the child that it was slowly but surely sinking under an intractable form of marasmus. Undoubted cerebral complications were exhibited in still another of a rachitic type, these complications seeming not unlike a spurious hydrocephalus, but certainly the immediate cause of death whatever they were.

It would be invaluable could we know positively that Baginsky's bacillus was the etiological factor in cholera infantum; but, granting its presence, it is a question still to be solved, whether it is there in relation to the disease *post hoc* or *propter hoc*. It certainly owes its development in some way to the elevated temperature of the summer season. My experience leads me to believe that the latter part of July and beginning of August are the most dangerous periods for infants. Only in one case did dentition bear any coincident relation with the choleric form diarrhoea, and though the dentition in this case was difficult, producing convulsions and requiring the free use of the lancet, I have no reason to believe that it had the slightest causative effect upon the diarrhoea. In all of my cases the dietetics were at fault, and when first seen by me the first instructions were always in that direction. Mothers usually gave their children as much milk and as often

as they desired. But a small part of it was assimilated, while the rest of it underwent fermentation in the alimentary canal, as shown by the highly acid stools. In several instances I have prohibited all milk for a few days, giving the child nothing but a little beef tea and gum arabic water; then, as soon as the diarrhoea showed some abatement I resumed the milk, sterilized, mixed with lime water and finely grated flour which had been boiled in a muslin bag for five hours. If there were any return of the diarrhoea to its former severity, the milk diet was again replaced by the water and beef-tea. In this symptomatic, alternating fashion has the nutrition of the child been maintained until it was well into convalescence. I prefer this simple method, or even that of peptonizing the milk, to the use of any of the milk foods placed upon the market. These I have found are not so well adapted for infants under one year as for those older. The peptonizing of the milk is the very best of all methods in the preparation of infants' food; but it requires more attention than those nursing are sometimes willing or able to give.

When practicable inunctions of cod-liver oil are a most valuable addition in the nutrition of young children. It is not so offensive to perform as some at first are inclined to imagine. The oil may have its odor disguised by means of the aromatics, and it is always well to add a minute quantity of ammonia to stimulate the skin. Holding the child in the sun or before an open fire, after having given it a lukewarm bath, the nurse takes a little of the oil upon the hand and rubs it gently but thoroughly into the skin of one arm, for instance, then of the other arm, and so on over the whole body, excepting only the head and face. This is to be done two or three times a day, about an ounce of the oil being used at each sitting. If faithfully performed the result more than repays the trouble. I never see an ill-nourished child now but what I recommend it, and in several cases tending rapidly towards marasmus—a condition so difficult oftentimes to overcome—the result has been most gratifying.

In my experience vomiting has

usually occurred about the end of the first or beginning of the second week of the diarrhoea. But it was always difficult to determine this point accurately; for the vomiting was already taking place when I first saw the patients, and the parents were not able to state exactly when the diarrhoeal attack commenced—it began so insidiously and increased so gradually. In some severe cases both vomiting and purging initiated the attack.

In all the pulse was more or less accelerated, respiration rapid and labored, but not giving any evidence of hypostatic congestion of the lungs. This may have been due to the fact that a continual change of decubitus was invariably insisted upon, as well also to the early use of stimulus (brandy) in keeping up the circulation. Erythema about the perineum and inner sides of the thighs was marked in Case IV, due to the highly acid, irritating character of the discharges.

Few, indeed, in my experience, have been the cases of cholera infantum or even simple summer diarrhoea in which the nervous system has not been more or less profoundly affected; and it is this fact that necessitates always the neatest discriminations in the general treatment. In all cases there is a certain amount of irritability, probably caused largely by the heightened temperature and harrowing thirst. From this simple state of nervous excitement, there may be all degrees gradually increasing up to that point at which the nervous system, being depressed by over-stimulation and exhaustion, resolves itself into a state of absolute coma and vital extinction. Hence, a line of treatment that may be perfectly judicious in the former condition may in the latter be positively fatal. The opiates should be used with unusual caution in the summer diarrhoea of infants. So unexpectedly at times do the patients succumb to the severer phases of this affection that, before they are able to rally, the opium may have done its deadly work upon a nervous system which, unforeseen, has at last suddenly yielded to the prolonged high temperature and wasting alvine discharges. I generally avoid the opiates, particularly if there be any degree of

excitement. In such cases I prefer the bromides to quiet the system. And as for the diarrhoea, it can usually be controlled by alkalies, bismuth, chalk mixture, and similar remedies, preceded by a short course of calomel in minute doses ($\frac{1}{12}$ of a grain).

Enemata of warm water are particularly beneficial, in all stages of the disease, to wash out any of the acid faecal matter that may be lying in the lower bowel. In nearly all cases have I found it advantageous to begin the treatment by irrigating the rectum. In cases where there is excessive irritability of the stomach, with constant vomiting, the enemata may be medicated with sodium benzoate, argentic nitrate, or even simple mucilag. acaciæ. In this manner, *opiates* may be used with less danger than when given by the stomach. If the stools contain mucus or blood-tinged mucus showing a high state of inflammation throughout the colon and particularly around the ileo-caecal valve, where the faecal matter is usually slower in passing through, rectal medication is superior to treatment solely by the stomach. So important are the use of clysters to remove the irritation caused by the acid faeces that it has been recommended to allow the child free, copious draughts of pure water as a valuable addition to the treatment. I feel confident that in certain instances the free use of water to drink was advantageous rather than deleterious. The water must be pure and cool, but not iced. It is a good adjuvant, but I am hardly prepared to say with some that this method alone is in the majority of cases sufficient treatment.

Stimulants should always be at hand from the very beginning of the attack, and though it is not necessary to give them continuously, they should be given freely and frequently when required. I recall a case where, as the child was almost dead and already given up by family and consultant, with a sort of despairing hope, a free use of brandy was employed, and though it awakened the child to a high state of excitement it brought it back to life. In the use of alcohol the family history and nervous constitution must be well considered. If the neurotic type predomi-

nates, stimulants had better be withheld as much as possible and all excitement avoided. In the treatment of cholera infantum brandy or whiskey is a more valuable agent when its administration in a few drop doses every hour or so is rigidly guarded by its effects. No arbitrary rules as to its dosage can be given; watching the effects is the best guide.

With the purely antiseptic treatment of cholera infantum I have had but little experience, and that not altogether favorable.

1938 N. Broad Street.

ARE MEMBRANOUS CROUP AND DIPHTHERIA IDENTICAL?

YES.

BY I. N. LOVE, M.D., ST. LOUIS, MO.

Read to the Section on Diseases of Children, at the Annual Meeting of the American Medical Association, held at Cincinnati, Ohio, May, 1888.

SINCE the first paper of Bretonneau, about 1821, at which time our real and definite knowledge of diphtheria had its beginning, down to the present time, the question which forms the subject of this paper has not been decided.

Earnest students and careful observers have answered affirmatively and negatively.

I shall not fatigue my hearers by collating the expressions of writers who have accepted one view or the other. I shall present my own opinions, based upon a deliberate weighing of all the evidence presented by trustworthy and thoughtful witnesses and personal clinical observation, extending over a period of eighteen years in hospital and private practice.

During the earlier years of my professional life I was uncertain in my position. After reading the views of Virchow, Cohen, West, Flint and others as able, I was inclined to take a position in the ranks of the dualists. Severe scrutiny of the products of the pen of Bretonneau, Traube, Barthez, Sanne and the tribe of unionists left me inclined to favor their position; but special clinical opportunities and additional arguments of later watchful workers and able analysts, like Jacobi and Struempel, have enabled me to crystallize my convictions and prompted

me to take a position positive and pronounced in favor of membranous croup and diphtheria being identical.

While it may be true, as Hilton Fagg has observed, that the more our knowledge of disease advances the more our distinctions and subdivisions multiply, yet the tendency toward unnecessary multiplications and distinctions without differences should be guarded against most carefully.

Dermatologists have given us a half dozen different terms to be applied to the different forms or expressions of erysipelas, when, as a matter of fact, we know that pathologically speaking they are all one and the same disease, dependent upon the same germ, and only varying in degree, action or manner of announcement.

So, too, with fevers the same disposition was manifested, as was illustrated, when, for a time, typhoid fever plus malaria as a complication, permitted the new coined term "typho-malarial fever," to take its place in our nomenclature.

Whether the membrane, as in the so-called true croup, be a fibrinous exudation, superficial and easily stripped from the surface, leaving a smooth mucous surface only robbed of its epithelium, while that of diphtheria is more of a coagulation penetrating or poured into the mucous tissue—a necrosis as it were in which the eschar can be removed only with great difficulty—is not important, it being largely dependent upon the anatomical characteristics of the parts involved.

That the disease is due to a special germ or micro-organism is admitted, and the recognition of this pathological point in the treatment has made a much more favorable showing in the mortality reports.

The growth and development of seed depend much upon their individual fertility, favorable soil and surroundings. The expression of every disease varies with the individual victim, and is largely affected by his environments, favorable or unfavorable. A may have typhoid fever so mild as to lead his physician to fancy he has in hand a simple case of continued fever; an attack of scarlet fever so simple as to be almost frivolous to the unwary; an assault from the

dreaded Asiatic scourge—cholera, so mild as to take the form of a gentle intestinal relaxation; an erysipelas suggesting erythematous flush; a small-pox with pustules few and far between, and little systemic suffering, while B in the same ward may fall a victim to typhoid, typical; scarlet fever, severe and superbly perfect; cholera, classical and collapse prompt; erysipelas so excessive as to endanger life, and occasionally an amount of suffering indescribable; and a variola so virulent as to promptly kill or leave its victim marked in visage, repulsive. This being so, then why should not A be as likely to have diphtheria in a manner so moderate and superficial as to be almost overlooked, and B so pronounced as to be fatal before the local expression could be observed?

Diphtheria selects by preference the pharynx rather than the larynx. The tonsils are a favorite site for the infection, not alone because of their prominence, but also because, as has been demonstrated, there is frequently to be found an interruption or break in their protective epithelial covering, and also owing to the fact that they are frequently in a vulnerable condition owing to previous compressant inflammatory conditions. Then, again, pavement epithelium is much more susceptible to attack than the ciliary variety, the latter being a higher grade of organization, of a more complex character, and possessed of greater ability to oppose aggression.

When diphtheria attacks the larynx and trachea, which it does fortunately very rarely, relatively, owing to the ciliary covering being less easily penetrated by the bacillus (possibly the tubercular bacillus makes a primary attack upon this point so often for the same reason) the free distribution of mucous glands which flow freely, creating an exosmosis rather than an endosmosis, antagonizing absorption and impeding the peril of the adjacent tissues and destructive necroses of the same. At the same time, the secreted mucus aids in throwing off the exudations from the surface, and the same causes are an explanation of the failure of the lymphatics of these structures to take up the infectious matter—hence

laryngeal and tracheal diphtheria are largely local, and unaccompanied by constitutional symptoms, and would be a really mild expression of the disease were it not that for mechanical reasons life is endangered. For similar reasons the circumscribed patches of diphtheritic membrane upon the tonsils, frequently covering them in their entirety or their opposing surfaces, and unaccompanied by such constitutional disturbance, glandular involvement, etc., are mild manifestations of the disorder, and by practitioners who intemperately assert that death is the only evidence deciding in favor of a diagnosis of diphtheria, are no doubt sometimes placed in line with non-infectious diseases.

The structures of the mucous membrane, its different elements, as the epithelium pavement membrane, underlying connective tissue mixed with elastic fibres, the blood-vessels, nerves, and gland ducts, all affect materially the pathological plan of action locally and the general involvement. The free flow of secretion, from the membrane lining the larynx and trachea and the nasal cavities, favors the separation and ready expulsion of organized exudates; but the difference in the adjacent tissues is manifest in the varying systemic poisoning; in laryngeal and tracheal diphtheria, Bowman's membrane forms a barrier to ready absorption, while nasal diphtheria is deadly dangerous, due to the large number and size of the lymphatic ducts of the Schneiderian membrane, as well as their perfect communication with the lymphatic glands of the neck, all aiding a ready entrance into the circulation.

The urine being free from albumen in the majority of cases of croup is cited as an argument by the dualists to sustain their position; but, even granting the fact, it is explainable by reason of the constitutionally mild character of the attack, if the larynx be primarily involved, and the large mortality preventing a fair comparison and complete determination of the presence or absence of albumen. The frequency or infrequency of subsequent paralysis, presented to prove their position as dualists, can be met by the same answer as the above.

A very interesting discussion of this subject occurred in the Louisville Clinical Society, January, 1888, and is reported in the *American Practitioner and News* of February 4th. An exhaustive aggregation of arguments from the dualist standpoint are ably presented by Dr. Jno. A. Ouchterlony. Dr. W. Cheatham, of Louisville, by request of Dr. Ouchterlony, looked up the authorities for the other side, and admirably arrayed them in service of his friend, and he acknowledges that the resulting article comes very near making him a unicist. If there be a difference, it is far from clear to his mind.

The argument that the suddenness of the attack and absence of a period of incubation separates croup from diphtheria is properly met by the statement that examinations of the pharynx and nasal spaces are frequently insufficient, and the mild prodroma which would of necessity occur in primary laryngeal or tracheal diphtheria would probably be overlooked.

I suspect, if the majority of cases of croup could tell their own story, they would relate the fact that a complete examination with full illumination of all the available mucous territory had not been made, and that intelligent and persistent interrogation might have revealed a history of slight loss of appetite, and a discomfort in swallowing difficult morsels for several days before. To illustrate this point, I recall three cases of croup—so-called—within my knowledge during the past six months. One case will illustrate the three: Sent for to see a child four years' old, said by parent to have sore throat, and feared diphtheria; not being in office, some hours elapsed and call was cancelled. A few days later the mother informed me that she had treated the child with medicine ordered for a neighbor's child with diphtheria, and had countermanded the order for me to call, fearing her house would be placarded, and her business—the supplying of her neighbors with milk—be ruined. Five days later, I was summoned in the night, but, being out, another physician was called; two days later, I was called in consultation, and found the child dying from pronounced laryngeal diphtheria; intubation or tracheotomy was offered and

rejected. The child died a few hours later, and a certificate was given by the attendant giving croup as the cause of death.

The mortality records show an enormous increase of deaths from croup (?) during an epidemic of diphtheria.

One fact which is worthy of notice, and which is an additional argument in favor of the identity of the two diseases, is that the classical treatment for croup has for years been free exhibition of the mild chloride (coupled with stimulation) with a view to its defibrinating effect. The secretory system has thus been stimulated, and the effect has been to favor the moistening and exfoliation of the exudation, and antagonize the disposition to constitutional involvement.

Since the same plan of treatment has been applied to general diphtheria, the tendency has been to the securing of a similar result, and the mortality reports present a more favorable showing. By the prompt recognition of the first appearance of diphtheria, and the immediate institution of imperative interference in the shape of free purging with the mild chloride, local antiseptics rendering the infectious matter innocuous, and continuance of constitutional measures, which are germicides and stimulators of glandular action—first on the list being the bichloride, benzoate of soda, and large quantities of water, we can without doubt claim accomplishments that are tangible and positive.

I feel strong in the conviction that "croup" and diphtheria are one and the same disease, and that the teachings of pathological anatomy as well as the clinical symptoms will justify no other conclusion.

3601 Lindell Boulevard.

THE PHILADELPHIA CLINICS.

MEDICO-CHIRURGICAL HOSPITAL.

SYNOVITIS OF KNEE.—GOODMAN drew off the fluid by aspiration, using strict antiseptic precautions, and washed out the joint with bichloride solution.

WAUGH has under treatment a similar case of years standing, which he is treating by the internal administration of salol and the continuous application of ichthyol externally. This treatment has been kept up for a month, with steady improvement. The ichthyol is

mixed with lanoline, spread on flannel, and the whole covered with oiled silk.

HEMATO-SALPINX.—MONTGOMERY removed a hemato-salpinx in which the distended and partially ruptured Fallopian tube contained more than half a gallon of blood. He was unable to remove all of the sac on account of intestinal adhesions.

The cavity was carefully cleansed, a large drainage tube inserted, and the wound closed.

The patient is now doing well.

CAUTION IN USING ACETANILIDE.—That care needs to be exercised in the use of acetanilide is shown by its action in a case of typhoid fever in the hospital. A single dose of 5 grains reduced the temperature $7\frac{1}{2}^{\circ}$ in less than two hours, and this was followed the same night, after a slight rise, by a further fall of $1\frac{1}{2}^{\circ}$.

There was no hemorrhage at the time or immediately following.

POISONING BY SULPHURIC ACID.—An interesting post-mortem was recently held on a case which died from the effects of injury by sulphuric acid swallowed eight months ago.

A whalebone bougie, with tips of increasing size, had been used for months to keep the œsophagus open. The patient was able to swallow a sufficient amount of food readily; but he was troubled with persistent vomiting, and at death was extremely emaciated. The œsophagus was a cicatricial mass from the pharynx to the stomach; the lesser curvature had numerous cicatrices, but the greater curvature none at all; the pylorus was much narrowed by a dense fibrous stricture.

A small false passage was found leading from the middle of the œsophagus, downward and forward about four inches. It ended in a small pouch, which was adherent to both lungs, and seemed to discharge its contents into minute bronchi. The stomach was greatly distended by sour food. To account for the presence of cicatrices on the lesser curvature and at the pylorus, but of none on the greater curvature, the longitudinal rugae of the stomach must, when the acid was taken, have been so approximated as to shut off the fundus and greater curvature from contact with the caustic.

TRANSLATIONS.

REPLY OF DR. DOMINGOS
FREIRE TO M. P. GIBIER.

IN the preceding number we gave a résumé of Gibier's latest communication concerning yellow fever, in which he states that his experiments did not yield results which harmonized with those of Freire.

We have just received a pamphlet from the latter in which he makes the following defense of his position.

He claims with some show of reason that Gibier's negative results should not weigh against his positive ones. Though Gibier did not succeed in isolating the yellow fever germ found by Freire, others have met with better success, among the number being Rebourgeon, Finlay and Delgado at Havana; Rangé and Maurel, surgeons of the French Navy, besides a number of Brazilian physicians. Two of these, Finlay and Delgado, made their researches at the same time and place as Gibier, and with the same care.

To Dr. Sternberg he devotes but a foot-note, saying that the American sojourned but a short time in Brazil, at a time when there was no epidemic; he examined but one sporadic case, and made no autopsy; in fact, he had not the materials with which to form an opinion of even mediocre value. Dr. S. supplies the lack of arguments by distorting the facts, and inventing imaginary calculations and coarse sophisms, in order to uphold his preconceived idea that this vaccination against yellow fever is chimerical.

Returning to M. Gibier, Dr. Freire claims that the microbe isolated from the black substance found in the intestines, and claimed by Gibier as his own discovery, is really the same as Freire's. In the note presented by Gibier to the Academy on Feb. 13, he says, "I have isolated, from the black contents of the intestine, by a particular process, a micro-organism whose culture let fall in less than twenty-four hours a deposit of thick, black flakes and powder. The sides of the culture tubes are blackened by the secretions of the microbes. I have inoculated with a drop of this culture the intestines of guinea-pigs, which

die in twelve to sixteen hours, with the intestine extremely congested, and containing a blackish and sanguinolent matter." All these results had been already obtained by Freire; and on page 203 of this book entitled, *Doctrines Microbienne de la fièvre jaune et ses inoculations préventives*, published in 1884, he says, "A large number of cultures have presented a black deposit, which we have shown to our students and to Brazilian and foreign physicians. When Professor Rebourgeon, in the laboratory of the faculty, repeated our experiments and researches, he had occasion to verify for himself the truth of this fact, curious and full of interest for the pathogeny of yellow fever."

Since M. Gibier has already found in the black substance a microbe, which behaves like that discovered in Rio Janeiro, and since he has already begun to propagate the malady by inoculations with this microbe, confirming on this point the results of Freire's experiments, the latter thinks his adversary may also in time discover the same germ in the blood, the urine and other fluids, as he himself has done. M. Gibier is further accused of lack of faith, since MM. Finley and Delgado offer proof that Gibier found in the blood a micro-organism in all respects like that of Freire, and confessed as much to professional witnesses.

In his effort to assimilate cholera morbus and yellow fever, in accordance with his preconceived idea, Gibier says that the microbe found in the digestive tube is a bacillus, short, thin, mobile, little refracting; and that when these bacilli articulate themselves by twos, they appear as diplococci. This bacillus has the singular property of secreting the black substance only in the presence of colonies of the white microbe. This Freire considers evidently due to faulty observation, and quite absurd. The microbe of the blood is identical with that of the stomach; both secrete black matter and both are micrococci. Since 1880, he has shown that bacilli are present in the black vomit, and that they interfere with the pure cultures of the micrococci; and Gibier has attributed to the former the rôle which pertains solely to the latter. The production of the

black substance may be favored by the presence of the bacilli, as well as by other ingredients of the culture bouillon. When the bacilli are eliminated from the micrococcus cultures, less black matter is formed and sometimes this is delayed for many months; but it never occurs in pure cultures of the bacillus.

In fine, Gibier has found or advanced nothing which has not already been published by Freire; and the former would have simply confirmed the latter's statements were it not for coveting the honor of original discovery.

Freire found that his cultures from the blood of yellow fever patient were always fertile and that these cultures, except for a slight difference in grouping, corresponded perfectly with those made in Havana by Finley and Delgado, not only in the color and the disposition of colonies in solid media, but even in the dimensions and form of the micro-organism. In 1886, Dr. Matienzo obtained at Vera Cruz, Mexico, cultures equally identical with those just described. These results, obtained in three different countries, by observers who had no connection with each other, offer a most valuable guarantee of their exactness and veracity.

This paper contains also a lithographic copy of M. Gibier's letter to Freire, with the latter's comments, and two colored plates showing micrococci cultivations from the blood and from black vomit.

Dr. Freire makes out a strong case against his antagonist, whom he accuses of endeavoring to appropriate to himself the Brazilian Professor's discoveries. It would not be the first time that ideas from this side of the Atlantic were thus appropriated in Europe, and the true authors ignored. Dr. Freire shows that he recognizes this when he exclaims bitterly, "What chance has a poor Professor of the Faculty of Medicine of Rio de Janeiro against a condemnation pronounced by the fiery assistant naturalist of the Museum of Natural History of Paris?"

MR. T. TUASON has given to M. the Director of Public Charities, the sum of 500 francs for workmen without work or means on their discharge from the hospitals.

HYDROFLUORIC ACID IN TUBERCULOSIS.

GRANCHER and CHAUTARD have examined the questions: What influence does the application of vapors of hydrofluoric acid through the respiratory passages exert in rabbits upon tuberculosis produced by intravenous injection? And further: What influence does hydrofluoric acid exert upon cultures of the tubercle bacillus?

To the first question the answer is absolutely negative, *i.e.*, no impression whatever is made upon the course of the infection.

To the second the answer is that hydrofluoric acid vapors acting upon cultures of bacillus tuberculosis certainly have the effect of diminishing the virulence of the bacilli, without however killing them.—*Centralblatt f. Bacteriologie u. Parasitenkunde*, 1888, Vol. IV, No. 7, p. 216.

REFLEX EPILEPSY.

DR. EDWARD DIRMOSER (*Internat. klin. Rundschau*, August 12, 1888, p. 1302) relates the following case in proof of the reflex origin of epileptic seizures:

A boy, 9 years of age, while at play fell off a wagon and fractured the right clavicle. This was not discovered until a considerable time afterwards, when, though the usual apparatus was applied, union failed to take place. Three-quarters of a year subsequently nervous symptoms made their appearance, consisting at first merely of an aura radiating from the seat of injury, with slight giddiness of short duration, occurring at long and irregular intervals. At the age of 15, disturbance of consciousness and evidences of convulsions were manifested. At 19, typical epileptic fits occurred three to five times daily. These attacks occurred either spontaneously, when they were always preceded by the aura, or they could be brought on by pressing the acromial end of the broken bone against the brachial plexus.

At this time the usual operation for procuring union was successfully performed. As the cure advanced the fits gradually diminished in intensity, and the intervals between grew longer and longer, and, by the time that consolidation of the bones and absorption of the callus had taken place, the paroxysms

ceased to return. The operation was done August 17, 1887; the last epileptic attack occurred December 11th of the same year, and the patient died of acute phthisis in August, 1888.

VACCINATION AGAINST CHOLERA.

THE following work is only a simple and faithful application of the experimental method which has been created in the laboratory of M. Pasteur, and which has already given such beautiful results in chicken cholera, carbuncle, and hydrophobia.

The author has no need to recall the true obstacle which has prevented him for five years from applying it to Asiatic cholera. This obstacle has forced M. Pasteur to leave this malady to the researches of future pupils.

So the author has applied to cholera two great principles of the experimental method—that of progressive virulence, and that of chemical virus.

It is known that the ordinary cultures of choleric vibron have only a minimum virulence, so that M. Koch, who discovered them, believed, after numerous failures, that cholera could not be inoculated by animals. On the other side, pupils of M. Pasteur, at the time of the French mission to Egypt, had only succeeded once in giving the cholera to a single chicken.

Now, it is easy to give to the cholera vibron an extreme virulence. It is necessary only to pass it through a pigeon after passage by a guinea pig. It kills the pigeons by producing in them a dry cholera with exfoliation of the intestinal epithelium. That which is more important still, the microbe appears also in the blood of the pigeons which have succumbed. After some transmissions this microbe acquires such virulence that the blood of the pigeons of passage, in doses of one or two drops, kill all fresh pigeons in from eight to twelve hours. This virus kills also with even smaller doses.

It is important to note that all animals of these two species, without exception, succumb to the virulent affection. With this absolutely fatal virus has been demonstrated the existence of choleraic immunity. So, we have inoculated a pigeon twice with an ordinary (non-virulent) culture of cholera; the

first time in the pectoral muscles; the second in the abdominal cavity. This pigeon has become protected against the most virulent virus—the blood of pigeons of passage. The fact of immunity has been so acquired.

Now, if one cultivates this virus of passage in a nutritive bouillon, and if this culture is heated 120° for twenty minutes, to kill all the microbes which it contains, one knows that the heating has left a very active substance in the sterilized culture. This culture in effect contains a toxic substance which causes some characteristic phenomena in the animals experimented upon.

Inoculated in quantities of 4 c.c. to a guinea pig the sterilized bouillon produces a progressive lowering of the temperature and death in twenty to twenty-four hours. At the autopsy there is found pronounced hyperemia of the stomach, and bowels, and, as a consequence, a complete absence of cholera microbes. The pigeons succumbed with the same morbid phenomena, only, they are more resistant to this poison and their death takes place only after a dose of 12 c.c. is injected at once. If, on the contrary, this same quantity of 12 c.c. is injected in three, four or five days, it does not kill them. Upon these pigeons one observes a phenomenon of the greatest importance—they have become protected against cholera. The most powerful virus, the blood of a pigeon of passage, inoculated even in quantity of 5 c.c., will not kill them.

The vaccination of guinea pigs succeeds still more readily; in introducing the toxic and vaccinal bouillon, in quantity of 2 c.c., one vaccinates them in two or three sittings (in all 4 c.c. to 6 c.c.).

So we are in possession of a method of vaccination preventive of cholera. More; this method is founded, as we have seen, upon the employment of sterile vaccine, and it possesses all the advantages of a chemical vaccination; the surety and the security, since the chemical vaccine can be measured in a manner altogether rigorous, and introduced by doses small enough to be harmless, so that the number of them can give a quantity sufficient for the desired protection. So, in our experience, the immunity is conferred

without danger and without exception. We hope that this method can be applied to human vaccination to preserve populations from Asiatic cholera.—GAMALEIA, in *Bull. de l'Acad. de Med.*

ANALGESICS IN ANEURYSM.—M. GERMAIN SÉE read a paper before the Academy of Medicine, in which he spoke of the use of analgesics. After speaking of the abuse of morphine, which produces cardiac depression and Cheyne Stokes respiration, he said that antipyrine could be substituted for the more objectionable drug. During a year and a half he had employed antipyrine in all aneurysms. The clavicular pains and painful irritations, with or without numbness of the arms, are relieved.

The precordial and cardiac pains and even the sensations of *angor pectoris* disappear as if by enchantment; especially when the antipyrine is given subcutaneously in doses of 25 centigrammes, night and morning. The dyspnoea is also relieved more rapidly than when the drug is given by the stomach.

Under the combined influence of iodide of potassium and antipyrine, one sees with satisfaction and certainty all oppression disappear, whether due to catarrh or to compression of the recurrent laryngeal nerve, of the bronchi, or of the lung.

As to phenacetine, he sees no reason to substitute it for antipyrine, which he considers the most inoffensive of nervines.

M. DUJARDIN-BEAUMETZ did not agree with M. Sée in looking upon antipyrine as innocuous. Many cases of intoxication have been reported from its use. Phenacetine gave him equally good results, and had the great advantage that its manufacture is not a monopoly. Besides, it is cheaper than antipyrine, and the dose is smaller. Its one disadvantage is its insolubility; nevertheless, with a daily dose of 1.50 grammes, in cachets of half a gramme each, as good results can be procured as with antipyrine.

He had not found the toxic dose of phenacetine, though he had given it to animals to the amount of three grammes per kilo, without causing death in any case.—*Bull. de l'Acad. de Méd.*

ACCORDING to the official gazette of the government of Turkestan, female physicians who practise in that province have to sustain a most painful struggle against the prejudice of the Mahometan population. Women will accept their aid only upon condition of receiving a gift. Similar customs prevail in Siberia. It was, until recently, the custom to present every woman who entered the Cossack Maternity Hospital at Omsk a gift of two or three roubles.—*Le Progrès Médical.*

THE *Scalpel* of August 19 announces that one of the students at Odessa, attacked by religious mania, performed castration upon himself. After the operation he went to church, where he prayed with ardor until a veritable pool of blood stood about him. They took him at once to the hospital. While the surgeons sutured the wound, the patient remained absolutely indifferent, and continued praying and making signs of the cross. In spite of a considerable loss of blood he recovered. We will recall to our readers that M. Seiburier has published a very interesting study upon the *Skoptzy*.—*Le Progrès Médical.*

SINCE the eighth of August, Jewish students are refused admission to the University of Moscow.

FELICI finds metrorrhagia quickly arrested by the local use of salicylic acid in concentrated solution.

LANGLOIS and Richet find the convulsant dose of cocaine is smaller the higher the temperature of the patient.

PARISI reports that cocoanut is a valuable tænicide. He gives the milk and pulp of one nut in the morning fasting, no purgative or confinement to the house being required.

MARGARITTI uses creolin, one to 400, for purulent ophthalmia. This solution is instilled into the eye and applied over it on compresses. A burning sensation follows, which lasts five minutes. Obstinate gonorrhœas also yield to deep injections of a 5 to 8 per cent. solution of the same agent.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 15, 1888.

EDITORIALS.

THE YELLOW FEVER IN
 FLORIDA.

AS we predicted in our last issue, the outbreak in Florida has proved serious. Not only is the number of new cases increasing daily, but the disease is appearing in a severer form; in some cases putting on malignancy. Reports begin to be heard of men being stricken down from a condition of apparently perfect health, and dying in a few hours.

This is not calculated to lessen the apprehensions of those who are exposed to the pestilence, and accordingly we hear some bitter strictures upon the action of the authorities. Surgeon General Hamilton and his associates have a difficult course to pursue, in alleviating the distress of those who are in the infected district and protecting the other sections of the country against the danger of infection. It is not to be expected that these two duties will never conflict, and cases of individual hardship will probably occur. But we would urge the public not to be too hasty in condemning men who are doing their best, but rather to believe that those who are on the ground and are familiar with the true facts are the best judges of what should be done. We notice in the newspapers that some of those who had condemned Dr. Hamilton have already acknowledged their mistake. It is much better to hold up the hands of those who are entrusted with this grave duty, instead of hindering them by opposition which is largely founded on ignorance of the true situation.

The appeal for assistance has come

quickly upon the heels of our prediction, and should be promptly and most liberally responded to. Money is needed above all; for money can be transmuted into any necessity.

We cannot help feeling that a fatal mistake is being made in sending nurses to Florida from the North. An unacclimated person going into the midst of a yellow fever epidemic is almost certain to be attacked—far more likely than the residents in the infected district. Such unacclimated nurses simply offer more material for the disease to feed upon, and add to the burdens of the stricken people. However generous the impulse which leads men and women to rush to the help of the afflicted brethren, good judgment should temper their enthusiasm, or it is worse than useless. Nurses should be supplied from New Orleans, Memphis or Pensacola, where numbers may be secured who have had the fever and are safe, as well as experienced, while the means for supporting and recompensing them should come from the North.

We print in another column the answer of Freire to the publications of Gibier and Sternberg. The question cannot as yet be definitely settled between these distinguished observers. Perhaps the present epidemic will be signalized by another step in clearing up the pathology of this affection.

Dr. Guiteras has already furnished some indirect testimony in a former outbreak. He gave the antipyretic treatment a trial, and found it unsatisfactory. Had the danger related simply with the high temperature,¹ the antipyretic method intelligently applied, as it was sure to be by Dr. Guiteras,

¹ In the limited number of cases observed by the writer, the temperature of 105° F. was the "dead line." All cases which passed this point died; while those which did not reach it recovered.

should have proved fully capable of controlling the attacks. The failure of this method is quite consistent with the theory which attributes the phenomena of the disease to the presence of a specific microbe in the stomach and the absorption into the blood of substances generated by this microbe; perhaps, acid phosphate of soda, or phospho-glyceric acid, as suggested by Dr. Ygnacio Alvarado in a scholarly paper read before the Ninth International Medical Congress.¹

The good results obtained by the use of intestinal antiseptics in some cases quoted by Gibier and by Sternberg go to confirm this view. The field is then clear in the present epidemic for the fullest trial of this method, and we may hope to hear of its success or failure; and also which of the various germicides proves most effectual.

The various forms of rectal alimentation should also have a trial. The stomach surely has enough to do without being called upon to digest food. Applying the principle of giving functional rest to a diseased organ, the rectum and the skin should be employed for the purpose of feeding. Nutrient suppositories and enemata, milk baths and inunctions of cod-liver oil or lanoline, and even the introduction of peptones into the vagina are eligible means of alimentation. While the amount of nutriment actually utilized in these ways may be small, it is better than none, or than irritating the stomach. Even if these methods were not employed, it is better not to feed by the stomach, as the disease is not of so long duration as to render supporting food of vital importance. It is probable that, even in so prolonged an attack as that of typhoid fever, the body is almost exclusively nourished from its

own tissues, and not from the food taken into the stomach.

If Hebersmith's treatment (which consists in the use of jaborandi) should prove the most successful, its efficiency would be utterly inexplicable on the microbic theory or any other with which we are acquainted. We do not look for success in its use, which, however, should not deny it a fair trial.

The death of the celebrated lecturer and astronomer, Richard A. Procter, from yellow fever, has come upon the community with a certain degree of shock. We read of the ravages of an epidemic without taking home to ourselves the full significance of it, until some one who is near and dear to us, or who fills a prominent place in the eyes of the world, is stricken down. That Mr. Procter should have yellow fever at all, shows that the disease must be more widespread in Florida than has yet been announced; and this view is borne out by the report within two days of sixty cases at a town not previously known to be infected.

Mr. Procter is said to have been suffering with Bright's disease, a complication which renders any but the mildest form of yellow fever necessarily fatal. This illustrates the reason for the curious fact which has been noted in epidemics that, although the mortality for the year in which they occur may be somewhat above the average, the mortality in the next year or two will be so much less that the ordinary average will be regained. In other words, those who perish in an epidemic of cholera or yellow fever are those who would have died within a year or two of disease of the kidneys, heart, liver or lungs. Add to these the sots and libertines; for the drunkard meets with certain death in yellow fever, while nothing predisposes to an attack so much as excesses in wine or

¹ *Philadelphia Med. Times*, Nov. 1, 1887.

women. Temperance in food and drink, yes, in all things, a wise forethought in personal and domestic hygiene, and that calm spirit which neither seeks nor fears death, are the the best prophylactics against yellow fever.

W. F. W.

TWO of our contemporaries have objected to our special notices, without, however, advancing any arguments in support of their position. It has somewhat the appearance of egotism for the most recent recruits to the ranks of medical journalism to lecture upon their duties those who have grown gray in the service, and to say to them, "It is wrong for you to do this and that, because *we* don't do it." Pray, what have these youths as yet done that they should presume to set up their alleged opinions as, the true standard? What great achievements warrant them in assuming the functions of censors of the medical press? We have searched in vain among the archives of medicine for an answer. Their published opinions reveal only the sophomoric state of mind, the innate conviction that the world needs regulating and that they are the regulators, while as to their capacity the records are lamentably deficient.

Our position upon special notices has been already stated. We do not like to see them in the reading pages of a medical journal; but when placed among the advertising pages, with scraps of news, odds and ends of various kinds, and a little good-natured fun, well enough in its way, but hardly of sufficient dignity or permanent value for the reading pages, we see no objection to them.

As to the specials peculiar to this journal, there is something more of a principle involved. We cannot see how a journal can avoid feeling a re-

sponsibility for its advertisements. If the editor considers the things advertised not suitable for his readers' use, he cannot honestly accept the advertisement. But how can he use his pages to introduce to his readers a thing he will not use himself? And if that use prove satisfactory, why not tell it? We do not confine ourselves to the formulas of the U. S. P. We claim the same right to use Wyeth's malt as P. and W.'s quinine; the same right to recommend Scott's emulsion as Merck's hyoscine, provided always that the recommendation is warranted. We feel it a duty to give the same trial to these things which we, by printing the advertisements, urge upon our readers. But we never sell a notice. When asked to include them in our contracts, we invariably refuse, saying that we will give the goods a trial, and if they prove worthy we will say so; if not, we won't; and if the manufacturer has too little confidence in his goods to submit them to such a test, we are very glad to return his contract.

Acting upon our basis of perfect independence, we have never hesitated to publish matter which favored persons who were not our advertisers over those who were; and to the credit of the latter be it said, not one word has ever been addressed to us to show that they expected us to exclude such matters. If, as our competitor admits, the TIMES is popular with the advertisers, we trust we have at the same time won their respect. To conclude this subject, now and hereafter, we have only to say that it is not our rivals who have a right to criticize our policy, but our subscribers; but from them we have never received a line objecting to our "specials," while if we do not publish the many approving letters we have received, it is because we believe the space can be better util-

ized for our readers' benefit. When those who pay for the journal desire to have the specials omitted we will do so.

W. F. W.

ANNOTATIONS.

ALREADY we begin to see the familiar faces of our brother Æsculaps upon the streets. By the time this number reaches its readers, the homeward tide will have fairly set in. Let us hope that a little of the health and vigor brought from seashore and mountain will be communicated to their patients.

The influence of the vitality of a physician upon those whose health depends upon him is very great. We recollect when we were convalescing from a fever that one visitor always did us good. His powerful frame, his merry face, looking as if he could laugh at the storms of a hundred years, never failed to fill the invalid with a sense of restfulness.

On the other hand, there are men under whose gaze the tide of vitality ebbs. We are confident that the sphygmograph would show a weakening of the heart when such persons approach a patient.

There is a surgeon in this city; not more learned, skilful and prudent than his fellows, but who carries his patients, by the sheer force of his vitality, through crises where death would almost inevitably ensue with other operators. Uncle Toby said, "By G—, you shan't die!" to the Lieutenant. And so our friend will say; and his belief in the patient's well-being is so evident that the poor sufferer takes heart, and actually *does* recover, even when, according to all the probabilities, he ought to die.

SENILE GANGRENE—SOME POINTS OBSERVED DURING THE TREATMENT OF A CASE.—The case in question was that of a man in his eighty-fourth year. At first the pain in the affected foot was somewhat relieved by the local use of lead-water and laudanum. When this ceased to give him ease, hot flaxseed poultices with laudanum were substituted. It was found that when one of these applications had lost its effect the

other would give great relief. In the course of a few weeks both had lost their power for good, and a solution of ammonium chloride one part, alcohol one part, and water eighteen parts, was substituted. By changing from one to the other of these three applications, a very tolerable degree of comfort was obtained; in fact, greater than I have seen in any similar case.

Opiates by the mouth, the rectum or the skin were not well borne; but chlorodyne succeeded somewhat better.

As soon as the skin showed signs of breaking, on the toe first affected, the fluid extract of thuja occidentalis was applied upon cotton wool; and this was the only dressing used throughout the whole course of the disease. Not a particle of offensive odor was ever to be noticed in the sick-room. The gangrenous tissues dried up, and neither hemorrhage nor other discharge occurred. In other cases of this disease the stench was exceedingly offensive; and the absence of this source of annoyance is a strong point in favor of the use of thuja. Wine of coca was used during the last few weeks, and while it is problematical if any real benefit ensued from its administration, it was greatly relished by the patient. During the last month the salicylate of soda, in doses of five to ten grains was given, with the effect of affording greater relief from pain than opiates or chlorodyne.

W. F. W.

IN the *Annals of Gynecology* Cushing gives the statistics of the past year's work at the Murdock Free Hospital for Women. Of 373 operations other than laparotomies, he records 329 cures, 42 relieved, and 2 deaths. One of the latter was a case of uterine cancer operated upon by Martin; while the other was a sloughing submucous uterine myoma, removed with the spoon saw.

Of nine laparotomies for the removal of ovarian and parovarian tumors, one resulted in death. Of four oöphorectomies for causes other than tumor, none died; while of eight laparotomies for other purposes than the removal of ovaries, six died.

During a recent visit to Boston, the editor had an opportunity to examine

this hospital. The hygienic arrangements are very complete; the ventilation being specially commendable. In fact, the good results recorded by Dr. Cushing may be said to be due to strict antiseptis, *plus* the effects of Murdock's liquid food.

The Carmichael and Ledwich Medical Schools in Dublin have been merged with the College of Surgeons. The proprietary interests are arranged satisfactorily by the latter school; some of the teachers of each school are dropped, receiving due monetary compensation, and the remaining members are united in a staff which consists of three Professors of Anatomy, one of Physiology, four of Surgery, two each of Medicine, Chemistry, Medical Jurisprudence, Materia Medica, and Botany, three of Ophthalmology, and one Anatomist. New professors will be appointed to Pathology and Pharmacology.

The night lectures at the two suppressed schools will be continued until the present classes have completed their studies, and will then be discontinued. This is to be commended; the system which allows a student to carry on his medical studies while pursuing some trade or business being a very objectionable one, and tending to produce a low quality of physicians in the majority of cases. Whether the wiping out of competition is to prove a benefit is another matter. We think it is a mistake, and look upon the great success obtained by the New York Post Graduate Colleges as largely due to competition.

THE *Lancet* states that an industrial farm for the treatment and employment of poor inebriates is being tried in England. The experiment seems to have been thus far highly successful. An establishment of this sort was recommended in the *TIMES* some months ago.

THE Medico-Chirurgical College has induced Dr. William H. Welch to give a course of lectures upon the exanthemata and vaccination. Dr. Welch has been physician to the Municipal Hospital for Contagious Diseases for many years, and as such possesses the confidence of this community in a remark-

able degree. It may be truly said that he is the highest authority in America upon the subjects mentioned.

For its action in securing this course of lectures from him, however, the *Pittsburgh Medical Review* holds the college up to the scorn of the civilized world.

THE reduction in working women's wages in Paris during the last six years amounts to fifty per cent. This has greatly increased immorality in that city. Women often work a whole week to earn one dollar, a sum on which it is impossible to live.

MEMBRANOUS CROUP.—Jones, in *The Toledo Med. and Surg. Reporter*, recommends the following treatment for croup: To abort the disease, give five to ten grains of calomel. If the disease continue, give enough Dover's powder to relieve the cough, and small doses of calomel. Opium enables the child to tolerate the disease by allaying the nervous symptoms. The futility of treating croup by the common methods, expectorants and nauseants, has been demonstrated in the practice of every physician of experience. The mortality is reduced by the opium and calomel treatment to five per cent.

We have repeatedly stated our belief that the present system of treating croup could with advantage be dropped, and opium given to relieve the symptoms, until the indication for intubation presents itself, *i. e.*, retraction of the abdomen during inspiration. This, with supporting measures, will give better results than the depressants usually employed.

LETTER FROM PARIS.

THE "CONGRESS FOR THE STUDY OF TUBERCULOSIS IN MAN AND ANIMALS" has held its first session with Professor Chauveau as president, and Professors Verneuil and Villemin as vice-presidents. A large number of physicians and surgeons were present from all over the world, including a few from the United States, of whom Dr. Jacobi and Dr. Page were named as honorary members. After a careful revision of the papers presented and read, we do

not find much that will interest the practical American doctor in his search after a means of cure for his patients, who are already far gone in phthisis, as but very little new was presented in relation to therapeutical action. Certainly, it is too much to expect this Congress to find a sure cure for phthisis, when so many have sought after it for years; but we hoped to find some best definite plan laid down to guide us, outside, however, of this practical view of the Congress; which, permit us to say, is the one mostly taken by American physicians; who seem, if we do say it ourselves, to always look to a congress of great savants, with an eye to getting some benefit for their patients by better modes of treatment advised. Therapeutics in France and, indeed, in Europe have almost lost all credit. In Paris, the faith in drugs is very slight indeed, and yet, as the late Professor Flint used to say, "I see no use for a physician if he does not believe in his treatment." But leaving out treatment of the malady the Congress advised some good prophylactic measures, and settled the question that tuberculosis in animals is the same disease as that found in man. From this to advising careful inspection of all meat before use, to boiling all animals' milk, etc., was easy and good advice.

The scientific papers were of great value. One of the most important was that by Professor Cornil on the contagion of tuberculosis by the mucous membranes. The eminent histologist showed that it was quite possible that a few drops of a culture of the bacillus could penetrate the vaginal mucous membrane of rabbits without there being the slightest erosion; so that if semen contains the germ its transmission is possible through the healthy vaginal membrane. The practical outcome of this is evident.

Professor Nocard and M. Arloing, of Lyons, spoke of the dangers from the use of meat and milk from tubercular animals. They asked that tuberculosis be inscribed on the list of infectious diseases; that tubercle be looked for in fact by inspectors of meat just the same as they search for trichina, and that such meats be seized and destroyed. As to the milk it cannot be

easy to prove that it is partly dangerous, so that the best plan is to advise that all milk be boiled before use, no matter where it comes from. For those patients who wish to drink animals' blood, the advice is given that they should only use goat and sheep's blood, as those animals have less tuberculosis than cows.

Fearing the dissemination of phthisis by vaccination performed from heifers who may be infected with the disease, M. Degeve, of Brussels, said that they had adopted a system of taking the vaccine matter from an animal and then killing the animal, and if it is found quite healthy the vaccine is used. If, on the contrary, it is found tubercular, then all is destroyed.

MM. Chantemesse and Widal, of Professor Cornil's laboratory, showed that the bacillus and spores of phthisis will live under water for a long time, from six weeks to several months. M. Hanot, one of the most distinguished of the *agrégé* Professors of the Paris School of Medicine, well known for his studies on the liver, showed that there is a tubercular cirrhosis of that organ, and that many cases of tubercular peritonitis, called ascitic, are simply caused by this sclerosis of the liver; the organ in such cases is small, lobulated and what M. Hanot calls "stringy." The question of heridity of tuberculosis was studied; but nothing new stated, if we except that it was found to be rare in animals. The newly born of tubercular cows do not seem to have the mother's disease, but acquire it in some manner later in life. The new Professor Strauss, of Paris, showed that fowls resist tubercular infection by ingestion, as he fed them for months with the bacilli. Another observer however found that the fatty looking chicken livers which we eat are often full of the tubercular germs. Dr. Strauss, and Dr. Wurtz (son of the late Professor of Chemistry), studied the action of the gastric juice on Koch's bacillus, and found that it does not destroy its power; and M. Butel, of Meaux, followed by saying that he thought tubercular infection was more often produced by the way of the digestive tract than by the pulmonary one.

M. Richelot, one of our surgeons, pleaded in behalf of operative intervention in local tuberculosis, and gave cases to prove that successive operations had completely cured a number of patients. M. Barette also was in favor of intervention, and he had found great benefit from the injection of iodoformed ether in local tuberculosis, which he stated was an excellent method of preparing for operation by scraping, in a week after injection, as it prevents pus from forming in the sac and renders its walls red, granular and easy to reunite after incision. The pulverization of creosoted oil at $\frac{20}{1000}$ was recommended. The German air treatment was touched upon and approved of, and the Congress closed to meet again in two years, under the presidency of Professor Villemin, by which time it is hoped great advancement will be made.

PNEUMO-THORAX.

The treatment of pneumo-thorax by antiseptic injections has made further progress since the important communication made by Professor Potain, who injected sterilized air, as reported in one of our late letters. At present M. Moizard, physician to the Lenon hospital, reports having cured two cases by injecting 30 grammes of the following solution into the pleural sac:

R	Tincture of iodine.....	} aā 60 grammes.
	Alcohol at 60°.....	
	Solution of iodide of	
	potassium at 1-10...	

M. Juhel-Rénoy found that injections of a solution of chloride of zinc, one-tenth strength, answered the same purpose, and that pleuritic patients of his were cured by it. He simply drew off a syringeful of the liquid in the pleura and replaced it with the same quantity of the chloride of zinc solution.

LANTANINA.

Some attention is paid here at present to a South American plant called *Lantana brasiliensis*, named by the natives *yerba sagrada*. The alkaloid—*Lantania*—is claimed to act like quinine on the circulation, and is tolerated by the most delicate stomachs. It is given in pills, as the tinctures are too bitter to use. The dose is from 10 centigrammes to 12 grammes every 24 hours. It is claimed to cure intermittent fevers where quinine

fails to act, and that it has a specific action on the morbid agent that produces the fever.

TATTOO MARKS.

For the benefit of sailors and others who in their youth were foolish enough to tattoo their skin with India ink figures, M. Variot gives a method of getting rid of the marks which causes but little pain and leaves no deformity. He simply punctures the skin over the mark with fine needles and introduces a little tannin, and then touches the parts with a strong solution of nitrate of silver; this forms a tannate of silver scab that falls off soon and the mark goes away with it.

LUYS' EXPERIMENTS.

M. Luys, physician to the Charity Hospital, Paris, gave a long series of lectures this winter to prove that there was an action produced by different medicinal solutions when they were enclosed in glass tubes and sealed, then simply held against the back of the neck of certain patients. We were present at several of Dr. Luys' lectures, and were much struck by his experiments. He would take girls who were capable of being hypnotised, and passing them first into the somnambule sleep, he put the tubes containing different drugs in contact with the skin of the patient, and produced the effects described of the medicines. One of the most curious experiments is where he places a tube containing brandy, and the patients at once pass on through all the stages of intoxication, finally singing a song and to all appearances being quite drunk. M. Luys did not hesitate to bring his system before the Academy of Medicine, which appointed a committee to examine this action of medicines at a distance. M. Dujardin-Beaumetz, Prof. Brouardel and Gariel reported adversely, when M. Luys retorts at great length at the meeting of the Academy of August 7th. But while admitting that the symptoms produced were very curious, most of the observers think that they are simulated by these patients, who get up the symptoms to show off. The proof is that when the commission used tubes of their own, and did not speak before the patient, all sorts of mixed up symptoms were produced, and M. Dujardin-Beaumetz said a pen-holder would

do as well as anything. The truth of the matter seems to be that many of these patients hear in the cataleptic state, and as they are natural actresses, they simulate whatever the person talking says. The wonderful symptoms produced by M. Luys' tubes, with the action of medicines at a distance, are probably thus produced.

M. Luys, however, in no way gives in, and hopes to prove yet that the influence is as he stated; and he showed a patient, to whom he said nothing, but placed a tube containing sparteine solution on her neck, when she at once manifested symptoms such as the actual administration of the drug would produce, the action of the pulse, etc., being exact. Time may show that there is something in it; but for the moment but few prominent physicians place any credit in the system.

TEMPERATURE OF SPRAYS.

M. Nicaise, late surgeon to the Paris hospitals, calls attention to the fall of temperature of spray when it is used at a certain distance. When the spray comes out of the machines used it is about 45° centigrade, but at 5 centimetres off it falls to 36°; at 10 to 28°; at 20 to 19°; and at 50 to 15°; so that at (about) half a yard distance the heat of the spray is only 15°. This varies slightly with the temperature of the room and the liquids used. These facts are important in the treatment of throat troubles by spray, as the distance at which the spray is thrown becomes important. It is probable that the constant cool spray thrown in cases of anthrax is what causes the cure, by refrigeration more than the antiseptic properties of the liquid used. This fall of temperature also explains the pleurisy often seen when surgeons allow the cold spray to fall upon the open wounds, and when spray is employed in operations it is much better to use it rather to purify the air of the room than allow it to fall on the patient.

THOMAS LINN, M.D.

ABSTRACTS.

CAUSE OF CANCEROUS INFECTIVITY.—

In the *Lancet*, Braithwaite develops his theory of the etiology of cancer. In his opinion, vitality is comparative; being confessedly greater in one individual than in another, it may likewise be greater in one tissue than in others.

He next raises the question whether the vitality of the epithelial cells may not be increased by excess of nourishment or otherwise. These cells, penetrating the basement membrane and lodging beneath it, meet in the softer tissues an increased supply of nourishment, and such cells, naturally hardy, incompressible, growing rapidly, unable to die by abrasion, have their intensity of life increased. The cells pass along the lymphatics to the glands; they find themselves in a machine accustomed to deal with effete and barely alive matter; the vitality of the invading cells overpowers that of the gland cells. This is favored by the lowered vitality of the tissues in general; the patient being in a high state of chemical nutrition, but a low tension of his vital fluid, from anxiety, etc. Life is not yet understood. There may be qualities of life as well as quantities. The life in the cancer cell is in some way superior to that of the tissues it invades. Experiments should be made by transplanting epithelium from a young and vigorous individual to the glands of an older and feebler specimen of the same species. He sums up by saying:

"If my view, therefore, is correct, the whole question of infectivity hinges upon the following points:—1. The certain fact of life being comparative in amount, a varying quantity in different tissues and cells of the same individual. 2. The probability that, just as decreased nourishment causes decreased vitality, so increased nourishment will cause increased vitality or life fluid in cells. 3. The probability that, as the cells of various tissues require different and varying forms of nourishment, so an increase in the food of one especial ingredient may cause an increase in the life fluid of one especial set of cells. 4. The probability that, when cells of different degrees of life compete for space, those of a higher grade will displace

PETRESKO says that pneumonia may be aborted at the outset by giving digitalis in the dose of one to two drachms of the leaves, in infusion. To children he gives twenty to thirty grains.

those of a lower grade, other circumstances being equal. 5. In the case of epithelium cells thus competing, their inherent peculiarities assist this competition in a remarkable degree. The truth or not of these propositions of course admits of argument and dispute; but they will, I think, be admitted by most men as reasonable and worthy of consideration."

He intimates that an excessive meat diet, or the use of too little food, from inactivity, may be conditions which favor the hypernutrition of the epithelial cell, while the rest of the tissues are enfeebled.

THE NEUROTIC TREATMENT OF CHOLERA INFANTUM.—The nervous system is first of all to be sustained by free libations of cold water and cold peptonized milk, by the peripheral impression of cold water on the cutaneous surface, as well as by the replenishing of the blood by cold water given by the mouth to satiety of thirst. Cold water or cold milk punch, or cold egg-nog enemata, hot drinks and hot bathing are to be used later. The tonicity of the vaso-motor nervous system needs attention, as well as the nutrition of the central nervous system. Rest, prompt and effective, of the central nervous system must be secured by remedies which tranquilize and restore. Cold water soothes the nerves to rest and sleep. Opium (in minimal doses only) sustains the central nervous system against peripheral shock. Ammonium and sodium bromide likewise guard the system against the waste of peripheral irritation, and predispose to central nerve rest. Chloral, at night, is calmative and antiseptic. These, with the hypophosphites, sustain the central nervous system against exhaustion. Malted nutrients, boiled milk and beaten eggs, sustain the central nervous system against assault until reparation becomes complete. Creosote and the carminatives, especially peppermint, are antiseptic and tonic through their influence on intestinal nerve-endings. Atropin in minute doses ($\frac{1}{1200}$ to $\frac{1}{1500}$ gr.) is of value.

The following formulæ are the result of thirty years' continuous practice, based on the principles previously discussed:

1. R Creosoti,
Ol. caryophylli,
Spt. menth. pip. āā.....gtt. j
Tr. opii.....gtt. xij
Tr. camph.....gtt. j
Spt. vin. Gal.....3 j
Syr. zingiber.....3 j
Syr. tolu, q. s. ad.....3 xlviij
M. S.—3i thrice daily, or after each passage,
to an infant six months to a year old.
2. R Sodii brom.,
Ammon. brom. āā.....3 j
Syr. hypophosph. co.....3 ij
Tr. digitalis.....gtt. ij
Syr. tolu.....3 ij
Aque cinnam.....3 xxiv
M. S.—3i in cinnamon or peppermint water,
or boiled milk, thrice daily, or oftener, as indicated.
3. R Chloral hydrat.....3 j
Ammon. brom.....3 j
Syr. tolu.....3 viij
Aque menth. pip. q. s. ad.3 xvj
M. S.—3i or less, according to age, at night.

In lieu of hypophosphites I often substitute essence of pepsin and diastatic extract of pancreas. Ten to twenty drops are given, combined with a solvent for the bromides, and the dose given once or twice daily.

—HUGHES, in *Med. Standard*.

THE PERCUSSION LIMITS OF THE STOMACH.—In a paper by Jaschtschenko, the view of Traube, that the stomach when empty falls back and does not lie in apposition with the abdominal or chest wall, is controverted; also his belief that the fuller the stomach is the lower its inferior border lies. According to Jaschtschenko's observations, the inferior border of the transverse colon extends as far downwards as the umbilicus; the superior border, which is 6 centim. higher, lies at a distance of 4 centim. below the sternum. When the gut is quite empty, the inferior border lies a little higher, or 1 centim. above the umbilicus. In the right and left hypochondriac regions the superior border passes under the costal arch, being covered on the right side by the lower border of the thorax and the lower border of the liver, and on the left by the lower border of the thorax only. If the left half of the transverse colon and the upper part of the descending colon are full, the stomach being empty, a more or less dull percussion sound will be obtained over the lower part of the thorax on the left

side; but above this there will be a tympanitic note up to the inferior border of the lung. If a part of the colon is empty, the stomach being full, a dull note will be obtained over the stomach, and a tympanitic note over the transverse and descending colon—that is, when the individual is in a standing or sitting posture. When he is lying on his back there will be a tympanitic note all over, with the exception of the region of the spleen. It is known that the superior border of the stomach lies against the lower border of the left lung, its inferior border coinciding with the transverse colon. This never changes its place, the filling of the stomach causing the dulness to extend from below upwards, not from above downwards, as Traube thought. Again, the stomach when empty does not collapse and fall back, for it is always under these circumstances distended with air. After death, in consequence of the loss of tone of the diaphragm, the abdominal organs rise somewhat above their position during life. —*Lancet*.

ILLNESS CONTRACTED FROM AN AUTOPSY.

CARTER, in the Bradshawe lecture on uræmia (*Brit. Med. Jour.*), relates a case of disease of the kidneys, apparently beginning with a severe cold. This was followed by diarrhœa, vomiting and exhaustion. When admitted to the hospital, nine weeks after his illness commenced, he looked very ill, his voice was faint, his memory weak, and he answered questions slowly. Tongue dry; pupils moderately contracted, but responsive to light; temperature, 96.2° ; pulse, 92, very weak; no trace of dropsy. During the day he passed 11 ounces of urine, faintly alkaline, s. g. 1010, containing one-fifth albumen and 1.5 per cent. urea. In staining, a bright blood-red layer, almost half an inch thick, rose to the surface. It looked as if stained with carmine, and was sharply separated from the underlying lighter colored liquid. There was not the faintest trace of blue when it was treated with tincture of guaiacum and ozonic ether, while with solutions of phosphomolybdate of sodium and terchloride of gold it gave dense precipitates, the former

reagent imparting to it an intense green color.

The man died very suddenly, two days after his admission, in collapse.

The weather was quite cool, and no sign of decomposition was present; but the two persons who held the post-mortem were made ill. Immediately after opening the body, the pathologist became faint and giddy, and was shortly afterwards seized with diarrhœa and vomiting, requiring medical assistance during the following night. The porter who sewed up the body suffered in the same way. Both recovered in two days.

No evidence of disease was found in any organ excepting the kidneys, which weighed but $1\frac{1}{2}$ oz. each. The heart weighed $11\frac{1}{2}$ ozs., the left ventricle being somewhat hypertrophied.

DIET IN SUMMER DIARRHŒA.

LOVE, in the *Medical Standard*, says: "I feel justified in epitomizing as follows: First: In the dietetic treatment of summer diarrhœa of infants, the almost complete withdrawal of food, temporarily, is sometimes desirable.

Second: While a cow-milk diet in its purity, or properly modified, is in the majority of cases to be preferred as a substitute for a mother's or wet nurse's milk, there are frequently conditions where all forms of milk are to be withdrawn and raw beef extracts or diluted albumen substituted, along with broths, beef teas, etc.

Third: As a temporary expedient, condensed milk is valuable; but it is objectionable as a permanent food.

Fourth: The addition of malted foods containing the proper proportions of carbo-hydrates to diluted milk is frequently most desirable.

Fifth: Artificial digestion is a great advance in the direction of the solution of the problem of artificial feeding. If the digestive apparatus be in perfect condition, predigestion is uncalled for; but when it is crippled its burdens may be very materially and happily lightened by the careful and judicious use of peptonizing ferments.

Sixth: No stereotyped food, which is applicable to all infants, no matter what the age or condition, has yet been

devised, and in the nature of things is not likely to be."

He does not agree with Woodbury as to the impracticability of peptonizing milk in the household.

AMERICAN AND FOREIGN OBJECTIVES.

At the late meeting of the American Society of Microscopists in Columbus, Detmers (*St. Louis Medical and Surgical Journal*) reported the results of a comparison which he had made in Germany between objectives constructed there and some from leading American factories. Neither Leitz, Seibert or Zeiss could effect a resolution of amphipleura pellucida with their own objectives; while Detmers succeeded easily with his $\frac{1}{10}$ of Herbert Spencer and $\frac{1}{12}$ of Bausch and Lomb.

The same results ensued when the crucial test of photography was applied.

The apochromatism was equally good in the American and German lenses. As to the formulæ used, the definition of the American was sharper and crisper; the resolution equally as good.

The German apochromatic twelfth costs \$120; the American tenth, of equally good make, \$80 to \$100. The Germans have improved their stands recently, by following good American models; but still stick to squatly models, which leave little room for accessories and require numerous special appliances. The American stands do not need special eye-pieces.

NON-INTERFERENCE IN OBSTETRICS.

Dr. Rosa H. Engert makes the following confession of faith in the *Medical Standard*: "It seems to me, with all due respect to 'conservative' opinion, perfectly safe to conclude:

I. That every parturient uterus, after the expulsion of the fœtus, should be examined immediately before the cervical portion has a chance to contract.

II. That this only opportunity of gaining a perfect knowledge of the condition of the uterine walls and adnexa should not be lost, as it can be done with advantage to the patient.

III. The parturient uterus should be as perfectly cleansed as possible. If there be such firm adhesions that they

cannot be removed by gentle manipulation, we should advance the welfare of the patient by thorough irrigation of the genital tract, and by hot poultices to the abdomen."

We fancy that many of our readers will feel inclined to disagree with her.

BENZOATE OF SODIUM.—Powell writes to the *St. Louis Medical and Surgical Journal* of the good results he obtains from this drug. He finds it valuable in follicular tonsillitis, gastro-intestinal troubles in children, arising from indigestion, and cholera infantum. In dyspepsia, with regurgitation of food, flatulence, heartburn and dilatation of the stomach, he combines the benzoate with nux vomica.

KELLOGG, in the *Journ. Amer. Med. Association*, recommends oxygen enemas in chronic lithiasis, indigestion, biliousness, acute rheumatism, diabetes, Bright's disease and other affections.

FOR WHOOPING-COUGH.

R Bismuth salicylat.....gr. lxxv
Benzoin pulv.....gr. lxxv
Quinine sulphat.....gr. xv.

M. S.—Use as insufflation five times a day.

—D'Heilly.

FOR CHRONIC CYSTITIS.

R Acid. boric.....3 ij
Potass. nitrate.....3 iv

M. Div. in chart, No. viij.

Sig.—One to be taken daily in a pint of uva ursi infusion, in divided doses.

FOR ACNE.

Naphthol.....10 parts
Sulphur. precip.50 parts
Green soap,
Vaselineāā....20 parts

Apply for half an hour, and then remove with lint or oil. Repeat daily until peeling is complete.

In obstinate cases:

Resorcin.....2.5 to 5 parts
Zinc oxide.....5 parts
Vaseline.....12.5 parts

To be made into a paste, and applied over night.

—Isaacs.

ST. MARC details two cases of grave uterine hemorrhage which were arrested by distilled tar-water, given in doses of a teaspoonful every hour.

REVIEWS AND BOOK NOTICES.

ATLAS OF VENEREAL AND SKIN DISEASES.

With Original Text By PRINCE A. MORROW, A.M., M.D. New York: Wm. Wood & Co., 1888. Fasciculi V, VI, VIII.

The present numbers fully bear out the favorable comments made upon those which preceded them.

Fasciculus V contains plates illustrating Annular Syphilide; Chancre of Lip, with Generalized Pustular Syphilide; Large Pustular Syphilide; Syphilis Cutanea Ulcerosa, and Rupia Syphilitica, with different stages of Pustulo-Crustaceous Syphilide.

Fasciculus VI: Tubercular, Serpiginous and Tuberculo-Ulcerous Syphilides; Ulcerative Gummata; Serpiginous Ulcerous Syphilide; Syphilis Cutanea Ulcerosa et Vegetans and Ulcerogummous Syphilide.

Fasciculus VIII: Seborrhœa; Comedo; Milium; Sudamina; Typhus Fever; Typhoid Fever; Variola; Variella; Rubeola; Rubella; Scarlatina and Erysipelas.

The illustrations of the typhus and typhoid eruptions are the best we have ever seen; and the same may be said of those of variola and scarlatina. That of variella does not show sufficiently the vesicles appearing in various stages of development at the same time. The morbillous group is not well done; the tints are not natural, and the artist has neglected the opportunity to show the gradual development of the eruption from above downwards in rubella as distinguishing it from rubeola.

In the syphilides, the peculiar, so-called "copper tint" has been exemplified in a singularly faithful manner. Exception may be made to Fig. 2, Plate XXVIII, where the drawing is not good; it being impossible to comprehend, from the picture, what portion of the body is represented.

DISEASES OF THE HEART AND CIRCULATION IN INFANCY AND ADOLESCENCE.

By JOHN M. KEATING, M.D. and WILLIAM A. EDWARDS, M.D. Illustrated with photographs and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1888. Pp. 215, 8vo. Price, \$1.50.

This work has been published in parts in the *Archives of Pediatrics*, and is now presented in book form, with many changes and additions.

The authors state that it is, in their belief, the only systematic attempt that has been made to collect in book form the material upon heart diseases in children.

The reader is cautioned against judging this book by the photographs, which are failures so far as conveying any idea of the conditions they are supposed to represent. But the book itself contains a large amount of information upon its special topic, taken from the most recent researches, and presented in an acceptable manner. It is a book which no experienced physician can peruse without interest, and few without profit.

THE NATIONAL FORMULARY OF UNOFFICIAL PREPARATIONS. First issue.

Published by the American Pharmaceutical Association, 1888. Cloth, pp. 176, 8vo.

This book represents the "growing point" of therapeutics. It contains the new, the elegant, the improved elements of pharmacy. While the official preparations which have been tried and proved by years, sometimes by centuries of use, form the groundwork of our therapeutics, these newer preparations represent the latest developments of the art.

The busy practitioner will find this book a good one to keep upon his office table, where he can readily refer to it.

COMPARATIVE STUDIES OF MAMMALIAN BLOOD.

With especial reference to the microscopical diagnosis of blood stains in criminal cases. By HENRY F. FORMAD, B. M., M. D. With sixteen illustrations. Philadelphia: A. L. Hummel, M. D., publisher, 1888. Cloth, pp. 61, 8vo.

This is a reprint, from the journal of Comparative Medicine and Surgery, of Dr. Formad's valuable researches. It is the book which any physician who expects to testify in court concerning a murder case would wish to read.

TUBERCULAR DIATHESIS. By W. C. Chapman, M. D., Toledo, Ohio.

THE BEST SURGICAL DRESSING. How to prepare it and how to use it; with a consideration of Beach's principle of bullet wound treatment. By OTIS K. NEWELL, M. D. Boston: Cupples & Hurd, 1888. Cloth, pp. 179, 12 mo. Price, \$1.00.

This little volume contains Mikulicz's monograph upon the use of iodoform in surgery, and an exemplification of Beach's principle, which, in the main, urges non-interference with bullet-wounds except where specially indicated.

A NEW WAY OF TRAINING NURSES. By A. WORCESTER, A. M., M. D. Boston: Cupples & Hurd, 1888. Cloth, pp. 118, 12mo. Price, .50.

The headings of this book are: How to Start a Nurse's Training School; The Training of Nurses in Private Practice, and [History of] The Wal-
tham Training School.

While comparatively few of our readers will wish to organize nurse's schools, the second chapter may be profitably perused by any physician.

DISEASES OF THE MALE URETHRA. By FESSENDEN N. OTIS, M. D. The Physician's Leisure Library. Geo. F. Davis, publisher, Detroit. Price, .25. A monograph by Otis, upon the urethra, needs no praise, nor extended notice, as the simple announcement of its appearance is sufficient. Mr. Davis is to be commended for his enterprise in securing such material for his useful little series.

QUAND ET COMMENT DOIT-ON PRESCRIRE LA DIGITALE. Par HENRI HUCHARD, Médecin de l'Hôpital Bichat. Paris: Librairie Médicale Leclerc, O. Berthier successeur. Boulevard Saint-Germain, 104. Bureaux de la Revue Generale de Clinique et de Thérapeutique (Journal des Praticiens.) 66, Rue de Ponthieu. 1888.

This admirable monograph, from the hands of one of the best modern clinicians, deserves to be widely circulated. Digitalis is one of the drugs concerning which it may be emphatically said that "a little knowledge is a dangerous thing." The alleged doctor, who knows

simply that digitalis is "good for heart disease," reminds one of a child playing with a loaded pistol.

THE PROPOSED BOARD OF MEDICAL EXAMINERS. By John H. Packard, M. D. Dr. Packard defines clearly the relation of the Code of Ethics to the proposed Board. His position is thoroughly consistent, and there can be no doubt that the Code must be disregarded by those who consent to serve upon a mixed Board of Examiners. The question at issue is really whether the Code as at present framed should be sustained.

LETTERS TO THE EDITOR.

It is the earnest desire of the Editor to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editor. Short, concise papers upon medical subjects, records of cases worth being reported and queries on any medical subject are requested.

OBSTINATE IMPACTION OF THE BOWELS.

EDITOR MEDICAL TIMES:

On April 16th I was called to see John McD., aged 77, weight 190 lbs., who complained of soreness and a dull pain in the right inguinal region, which first manifested itself after a full meal of spinach, etc., which was eaten at night. In the morning his temperature was 100°; vomiting of a bitter watery substance, yellow in color; tongue thick and leathery in consistence, cracked and coated; bowels constipated. I prescribed mass. hydrarg., gr. xv, followed by a bottle of citrate of magnesia, and ordered sinapism to the iliac region.

April 17, no better; pain rather increased, breath very foul, no nausea or vomiting, temperature 100.3°; heart weak, patient very nervous. Prescribed tr. digitalis, sod. bromid., tr. opii; also, liq. ammon. acet., tr. aconit., and pill cathartic comp., iij.

April 18, temperature normal, pain relieved, soreness decreased somewhat, still constipated. Prescribed mild chloride, with sol. magnesia; gave an enema of hot soapsuds, with negative result.

April 19, temperature normal, feels better, pain in caecum only on pressure, breath still foul, tongue still heavily coated and white, with eructations of gas; constipation still persists. Prescribed, magnesia sulphate in drachm doses, alternating with pulv. opii $\frac{1}{2}$ gr., and then an enema of hot soap suds every twenty minutes until five were used.

April 20, temperature normal, patient better in every way; pain in ascending colon only on pressure, breath still foul, tongue gradually cleaning, had a small passage, about one ounce. Prescribed magnesia sulph. in half-drachm doses every two hours, and also gave an enema of one quart, withdrawing the opium.

April 21, much improvement, constipation still continues, rumbling heard over the abdomen. Continued above treatment; gave large injections of soap and hot water; diet, milk and slops.

April 22, much better; had small movements during the day, very offensive to smell, and very frequent and watery. Above treatment continued. Diet, soft food.

April 23. Well, but very weak. Ordered tonics.

GEO. W. COX, M.D.

Philadelphia, Pa.

OFFICIAL LIST OF CHANGES AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDED, AUGUST 27, 1888.

SAWTELLE, H. W., SURGEON. Directed to proceed to San Diego, Cal., and inspect Service at said station, August 17, 1888.

HUTTON, W. H. H., SURGEON. To proceed to Way Cross, Ga., and assume charge of inspection and fumigation stations, August 18, 1888.

URQUHART, F. M., PASSED ASST. SURGEON. Report to Surgeon Hutton for special duty, August 19, 1888.

GEDDINGS, H. D., ASST. SURGEON. Appointed an Assistant Surgeon, August 18, 1888. To report to Surgeon Hutton for special duty, August 19, 1888.

WERTENBAKER, C. P. ASST. SURGEON. Appointed Assistant Surgeon, August 18, 1888. Assigned to duty at the port of Norfolk, Va., August 20, 1888.

STONER, J. B. ASST. SURGEON. To proceed to Charleston, S. C., for temporary duty, August 20, 1888.

GUIERAS, JOHN, PASSED ASST. SURGEON. To proceed to St. Mary's River, Fla., to establish and take command of refuge camp at that point. The camp to be known as Camp Perry. August 22, 1888.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING SEPTEMBER 1, 1888.

ASSIST. SURGEON R. P. CRANDALL detached from the "Saratoga," and wait orders.

P. A. SURGEON W. R. DuBOISE detached from the "Jamestown" and to the "Constellation." W. F. ARNOLD, Nashville, Tenn., commissioned ASST. SURGEON in the Navy, August 18.

GEORGE A. LUNG, Canandaigua, N. Y., commissioned ASST. SURGEON in the Navy, August 18.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE FOR THE TWO WEEKS ENDED SEPTEMBER 10, 1888.

PURVIANCE, GEORGE, SURGEON.—To proceed to Fairport, Ohio, as Inspector, August 27, 1888.

MURRAY, R. D., SURGEON.—To proceed to Key West, Fla., Sept. 5, 1888.

HUTTON, W. H. H., SURGEON.—To take temporary command of Camp Perry, Fla., Sept. 8, 1888.

GUIERAS, JOHN, P. A. SURGEON.—To proceed to Jacksonville, Fla., after return from duty, on special train from Jacksonville to Hendersonville, N. C., Sept. 8, 1888.

BRATTON, W. D., P. A. SURGEON.—To proceed to San Francisco, Cal., and report to Surgeon H. W. Sawtelle for duty, Sept. 8, 1888.

WARDIN, EUGENE, P. A. SURGEON.—To rejoin his station at Mobile, Ala., Sept. 5, 1888.

MAGRUDER, G. M., ASST. SURGEON.—To proceed to Mobile, Ala., and assume temporary charge of the Service, August 31, 1888.

FATTIC, J. B., ASST. SURGEON.—To proceed to Memphis, Tenn., and relieve P. A. Surgeon C. T. Peckham, August 31, 1888.

MAGRUDER, G. M., ASST. SURGEON.—To proceed to Way Cross, Ga., Sept. 6, 1888.

EPIDEMIC SORE THROAT, POSSIBLY FROM IMPURE MILK.—At the Medico-Chirurgical Society of Edinburgh (*Edinb. Medical Journal*), Cotterill described two epidemics of sore throat occurring among pupils at a college. The symptoms were anorexia, malaise, sickness, epistaxis, furred tongue, bad breath, and other symptoms of gastric troubles. The tonsils and pharynx were bright red, with much swelling; uvula and soft palate congested, but no exudation at any time upon them. On the tonsils and posterior pharyngeal wall were always follicular exudations, easily removable; sometimes large.

Albuminuria was infrequent. The disease lasted a week, in the acute stage. A peculiar symptom was brawny swelling in the neck, behind the sterno-cleido-mastoid. Rheumatic pains in the neck and back were noticed during convalescence.

Four days after the milk was ordered to be boiled, the epidemic ceased; but reappeared when the boiling was discontinued.

This experience was repeated in the subsequent year, with the same result.

The cows from which the milk was supplied were examined and found to be suffering with a vesicular disease on the teats, as to the nature of which opinions differed.

